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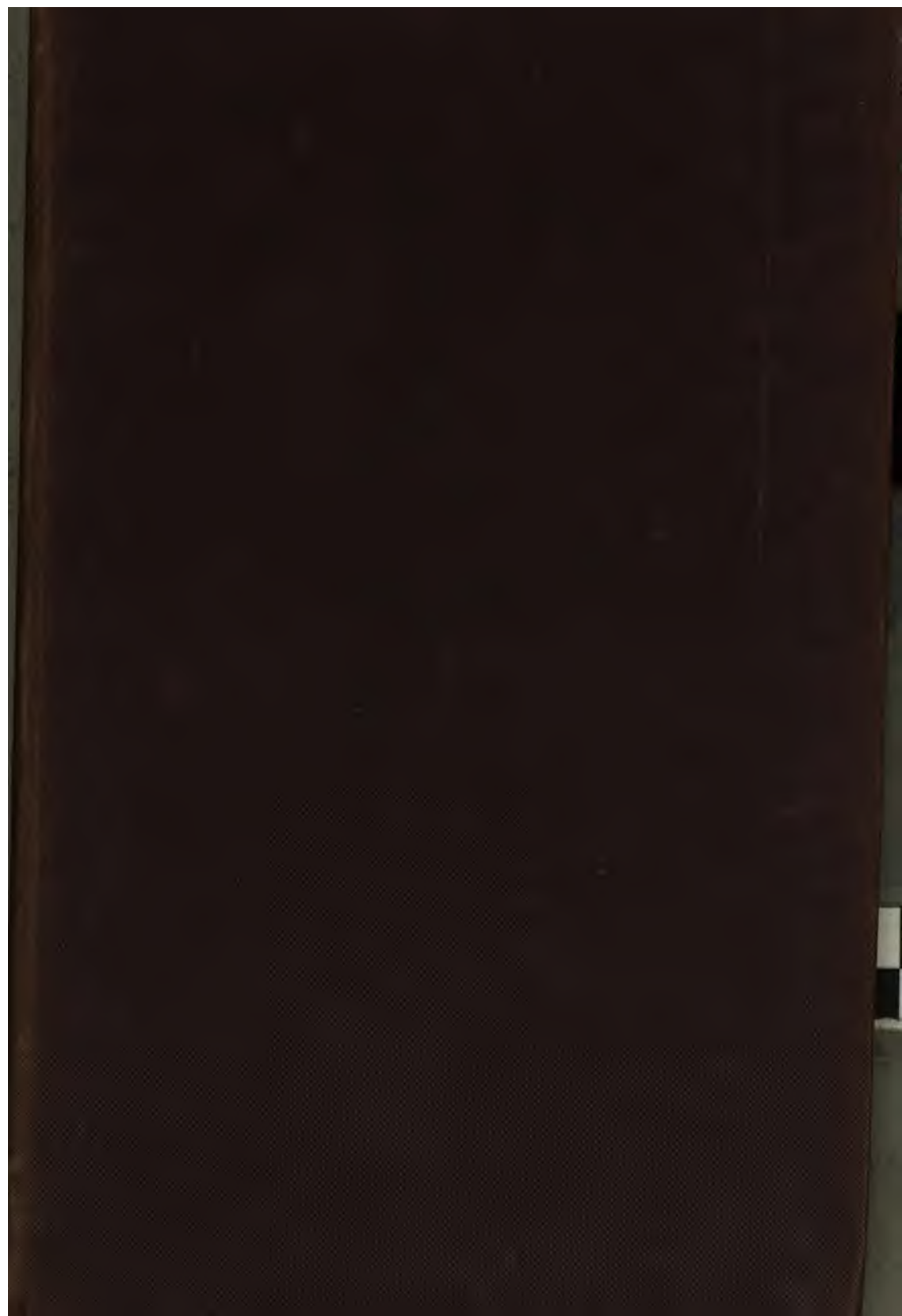
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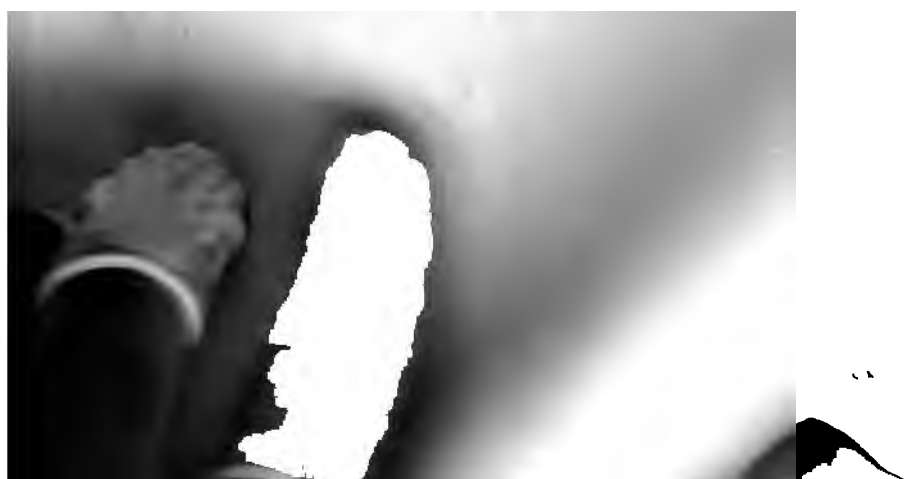
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46.

425.







# STATISTICS AND CALCULATIONS

ESSENTIALLY NECESSARY

TO PERSONS CONNECTED WITH



## RAILWAYS OR CANALS;

CONTAINING

A VARIETY OF INFORMATION NOT TO BE FOUND ELSEWHERE.

CALCULATED AND ARRANGED BY

S A M U E L S A L T.

~~~~~  
What should one read for?—For!—Why, to know FACTS.—POPE.

The man who writes, speaks, or meditates, without being well stocked with FACTS, as landmarks to his understanding, is like a mariner who sails along a treacherous coast without a pilot, or one who adventures in the wide ocean, without either rudder or compass.—BACON.

FACTS are to the mind the same thing as food to the body. On the due digestion of facts, depend the strength and wisdom of the one, just as vigour and health depend on the other. The wisest in council, the ablest in debate, and the most agreeable companion in the commerce of human life, is that man who has assimilated to his understanding the greatest number of facts.—BURY.

Within the last two hundred years, or since Galileo and Bacon taught us this great lesson, we have been employed in recording FACTS in ten thousand several Volumes. But, thus scattered, they lose so much of their value and importance, that, in another age, we may hope some aspirant after literary glory will perform the Herculean labour of condensing the whole into a volume.—PLATFAIR.

~~~~~  
SECOND EDITION.

LONDON:

PUBLISHED BY EFFINGHAM WILSON, ROYAL EXCHANGE; AND BRADSHAW & BLACKLOCK,  
59, FLEET-STREET.

MANCHESTER: BRADSHAW AND BLACKLOCK, 27, BROWN-STREET.

1846.

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## REMARKS.

IN arranging the following TABLES, &c., it has been my endeavour to insure *correctness* and *brevity*, including much really useful information to those persons practically connected with the Merchandise department of RAILWAYS or CANALS; the CARRIER, also, will find it a useful compendium, if I may judge from my own practical experience for the last 20 years. The first portion of the work was drawn up for the use of Clerks I had to superintend, and saved me much trouble and repeated calculations. The statistical portion has been collected from various sources, and at different times; it is now extracted from my Memorandum Book, and offered to those who require it. I do not lay claim to originality so much, as to the peculiar means I have had of obtaining matter which hitherto has been carefully withheld from the Public.

Few persons have watched the development of the resources of the British Empire, but must admit the great power and wealth she possesses: every person connected with the transmission of Merchandise, must have been struck with the large quantities of some particular article that may have passed; and to such persons some of the following Statistics may be interesting. At some future period, the present Compiler may publish further Statistics, of a later date, to compare with what is already given. The following may be given, as an approximation, to judge what were the resources of the United Kingdom in 1842:—

	Fee Simple.	Annual Produce.
Great Britain .....	£ 3,769,500,000	£
From	£	
Land .....	280,000,000	
Manufactures .....	173,136,316	
Mines and Minerals .....	21,156,131	
Fisheries .....	5,000,000	
Profits of all Trades and Professions .....	56,000,000	
Dependencies in Europe .....	27,115,094	535,291,447
Settlements in North America .....	62,100,466	2,146,198
Ditto in the West Indies .....	131,052,424	17,620,629
Empire in India .....	1,611,977,354	22,196,674
Possessions in the Indian Ocean .....	27,500,781	313,200,000
In Africa and its Coasts .....	6,114,308	4,201,332
In Australia .....	7,000,000	1,057,065
	5,642,360,427	2,97,813,345

I may add, that I have here brought the *Carrier* a nosegay of culled flowers, to which my principal claim is the thread that ties them, and supplying the means of comparing the *past* with the *present* and *future*.

SAMUEL SALT.

Manor House, Ardwick, Manchester,  
November 1845.

CALCULATION  
OF  
TOLL OR FREIGHT,

FROM  $\frac{1}{4}$  CWT. TO 20 TONS,

AT THE VARIOUS RATES CHARGED BY CARRIERS,

FROM 1s. TO 110s. PER TON.

4LBS. MAY BE CHARGED AS  $\frac{1}{4}$  CWT., AND ALL UNDER NOT CHARGED.

*One Halfpenny to be charged as a Penny, and a Farthing not charged.*



46.

425.





"Be faithful in fulfilling your appointments."

At 5s. 10d. per Ton.												At 6s. per Ton.											
Cwt.		Cwt. and $\frac{1}{2}$	Cwt. and $\frac{1}{2}$	Cwt. and $\frac{3}{4}$	Tons.		Cwt.		Cwt. and $\frac{1}{2}$	Cwt. and $\frac{1}{2}$	Cwt. and $\frac{3}{4}$	Tons.											
s.	d.	s.	d.	s.	d.	£	s.	d.	s.	d.	s.	d.	£	s.	d.								
0	0	0	0	0	1 $\frac{1}{2}$	0	2	0	0	0	0	0	0	0	0	0							
1	0	3 $\frac{1}{2}$	0	4 $\frac{1}{2}$	0	5 $\frac{1}{2}$	0	6	0	5	10	0	3 $\frac{1}{2}$	0	4 $\frac{1}{2}$	0							
2	0	7	0	7 $\frac{1}{2}$	0	8 $\frac{1}{2}$	0	9 $\frac{1}{2}$	0	11	8	0	7 $\frac{1}{2}$	0	8 $\frac{1}{2}$	0							
3	0	10 $\frac{1}{2}$	0	11 $\frac{1}{2}$	1	0 $\frac{1}{2}$	1	1	0	17	6	0	10 $\frac{1}{2}$	0	11 $\frac{1}{2}$	1							
4	1	2	1	2 $\frac{1}{2}$	1	3 $\frac{1}{2}$	1	4	1	3	4	1	2 $\frac{1}{2}$	1	3 $\frac{1}{2}$	1							
5	1	5 $\frac{1}{2}$	1	6 $\frac{1}{2}$	1	7 $\frac{1}{2}$	1	8	1	9	2	1	6	1	7 $\frac{1}{2}$	1							
6	1	9	1	9 $\frac{1}{2}$	1	10 $\frac{1}{2}$	1	11 $\frac{1}{2}$	1	15	0	1	9 $\frac{1}{2}$	1	10 $\frac{1}{2}$	1							
7	2	0	2	1 $\frac{1}{2}$	2	2 $\frac{1}{2}$	2	3	2	0	10	2	1 $\frac{1}{2}$	2	2	2							
8	2	4	2	4 $\frac{1}{2}$	2	5 $\frac{1}{2}$	2	6 $\frac{1}{2}$	2	6	8	2	4 $\frac{1}{2}$	2	5 $\frac{1}{2}$	2							
9	2	7 $\frac{1}{2}$	2	8 $\frac{1}{2}$	2	9 $\frac{1}{2}$	2	10	2	12	6	2	7 $\frac{1}{2}$	2	9 $\frac{1}{2}$	2							
10	2	11	2	11 $\frac{1}{2}$	3	0 $\frac{1}{2}$	3	1 $\frac{1}{2}$	2	18	4	3	0	3	1	3							
11	3	2 $\frac{1}{2}$	3	3 $\frac{1}{2}$	3	4 $\frac{1}{2}$	3	5	3	4	2	3	3 $\frac{1}{2}$	3	4 $\frac{1}{2}$	3							
12	3	6	3	6 $\frac{1}{2}$	3	7 $\frac{1}{2}$	3	8 $\frac{1}{2}$	3	10	0	3	7 $\frac{1}{2}$	3	8	3							
13	3	9 $\frac{1}{2}$	3	10 $\frac{1}{2}$	3	11 $\frac{1}{2}$	4	0	3	15	10	3	10 $\frac{1}{2}$	3	11 $\frac{1}{2}$	4							
14	4	1	4	1 $\frac{1}{2}$	4	2 $\frac{1}{2}$	4	3 $\frac{1}{2}$	4	1	8	4	2 $\frac{1}{2}$	4	3 $\frac{1}{2}$	4							
15	4	4	4	5 $\frac{1}{2}$	4	6 $\frac{1}{2}$	4	7	4	7	6	4	6	4	7	4							
16	4	8	4	8 $\frac{1}{2}$	4	9 $\frac{1}{2}$	4	10 $\frac{1}{2}$	4	13	4	4	9 $\frac{1}{2}$	4	10 $\frac{1}{2}$	4							
17	4	11 $\frac{1}{2}$	5	0 $\frac{1}{2}$	5	1 $\frac{1}{2}$	5	2	4	19	2	5	1 $\frac{1}{2}$	5	2	5							
18	5	3	5	3 $\frac{1}{2}$	5	4 $\frac{1}{2}$	5	5 $\frac{1}{2}$	5	5	0	5	4 $\frac{1}{2}$	5	5 $\frac{1}{2}$	5							
19	5	6 $\frac{1}{2}$	5	7 $\frac{1}{2}$	5	8 $\frac{1}{2}$	5	9	5	10	10	5	8 $\frac{1}{2}$	5	9 $\frac{1}{2}$	5							
20	5	10	5	10 $\frac{1}{2}$	5	11 $\frac{1}{2}$	6	0	5	16	8	6	0	6	1	6							

"Call on a business man in business hours, transact your business, go about your business, to enable him to do his business."

At 6s. 6d. per Ton.												At 6s. 8d. per Ton.											
Cwt.		Cwt. and $\frac{1}{2}$		Cwt. and $\frac{1}{2}$		Cwt. and $\frac{3}{4}$		Tons.		Cwt.		Cwt. and $\frac{1}{2}$		Cwt. and $\frac{1}{2}$		Cwt. and $\frac{3}{4}$		Tons.					
s.	d.	s.	d.	s.	d.	s.	d.	£	s.	d.	s.	d.	s.	d.	s.	d.	£	s.	d.				
0	0	0	1	0	2	0	3	0	0	0	0	0	0	1	0	2	0	0	0				
1	0	4	0	4	0	5	0	6	0	6	0	4	0	5	0	6	0	6	8				
2	0	7	0	8	0	9	0	10	0	13	0	0	8	0	9	0	10	0	13				
3	0	11	1	0	1	1	1	2	0	19	6	1	0	1	1	2	1	3	1				
4	1	3	1	4	1	5	1	6	1	6	0	1	4	1	5	1	6	1	6				
5	1	7	1	8	1	9	1	10	1	12	6	1	8	1	9	1	10	1	13				
6	1	11	2	0	2	1	2	2	1	19	0	2	0	2	1	2	2	2	0				
7	2	3	2	4	2	5	2	6	2	5	6	2	4	2	5	2	6	2	6				
8	2	7	2	8	2	9	2	10	2	12	0	2	8	2	9	2	10	2	13				
9	2	11	3	0	3	1	3	2	2	18	6	3	0	3	1	3	2	3	3				
10	3	3	3	4	3	5	3	6	3	5	0	3	4	3	5	3	6	3	6				
11	3	7	3	7	3	8	3	9	3	11	6	3	8	3	9	3	10	3	13				
12	3	10	3	11	4	0	4	1	3	18	0	4	0	4	1	4	2	4	4				
13	4	2	4	3	4	4	4	5	4	4	6	4	4	4	5	4	6	4	6				
14	4	6	4	7	4	8	4	9	4	11	0	4	8	4	9	4	10	4	13				
15	4	10	4	11	5	0	5	1	4	17	6	5	0	5	1	5	2	5	5				
16	5	2	5	3	5	4	5	5	5	4	0	5	4	5	5	5	6	5	6				
17	5	6	5	7	5	8	5	9	5	10	6	5	8	5	9	5	10	5	13				
18	5	10	5	11	6	0	6	1	5	17	0	6	0	6	1	6	2	6	3				
19	6	2	6	3	6	4	6	5	6	3	6	6	4	6	5	6	6	6	6				
20	6	6	6	7	6	8	6	9	6	10	0	6	8	6	9	6	10	6	13				

More despatch is attained through method and system than irregular rapidity.—SALT.

It is better to be slow and correct, than quick and superficial.—SALT.

At 7s. per Ton.														
Cwt.		Cwt. and $\frac{1}{4}$		Cwt. and $\frac{1}{2}$		Cwt. and $\frac{3}{4}$		Tons.						
s.	d.	s.	d.	s.	d.	s.	d.	£	s.	d.				
0	0	0	1	0	2	0	3 $\frac{1}{4}$	0	0	0				
1	0	4 $\frac{1}{4}$	0	5 $\frac{1}{4}$	0	6 $\frac{1}{4}$	0	7 $\frac{1}{4}$	0	7				
2	0	8 $\frac{1}{2}$	0	9 $\frac{1}{2}$	0	10 $\frac{1}{2}$	0	11 $\frac{1}{2}$	0	14				
3	1	0 $\frac{1}{2}$	1	1 $\frac{1}{2}$	1	2 $\frac{1}{2}$	1	3 $\frac{3}{4}$	1	1				
4	1	4 $\frac{1}{4}$	1	5 $\frac{1}{4}$	1	7	1	8	1	8				
5	1	9	1	10	1	11	2	0 $\frac{1}{4}$	1	15				
6	2	11 $\frac{1}{4}$	2	2 $\frac{1}{4}$	2	3 $\frac{1}{4}$	2	4 $\frac{1}{4}$	2	2				
7	2	5 $\frac{1}{2}$	2	6 $\frac{1}{2}$	2	7 $\frac{1}{2}$	2	8 $\frac{1}{2}$	2	9				
8	2	9 $\frac{1}{4}$	2	10 $\frac{1}{4}$	2	11 $\frac{1}{4}$	3	0 $\frac{1}{4}$	2	16				
9	3	1 $\frac{1}{4}$	3	2 $\frac{1}{4}$	3	4	3	5	3	3				
10	3	6	3	7	3	8	3	9 $\frac{1}{4}$	3	10				
11	3	10 $\frac{1}{4}$	3	11 $\frac{1}{4}$	4	0 $\frac{1}{4}$	4	1 $\frac{1}{4}$	3	17				
12	4	2 $\frac{1}{4}$	4	3 $\frac{1}{4}$	4	4 $\frac{1}{4}$	4	5 $\frac{1}{4}$	4	4				
13	4	6 $\frac{1}{2}$	4	7 $\frac{1}{2}$	4	8 $\frac{1}{2}$	4	9 $\frac{1}{2}$	4	11				
14	4	10 $\frac{1}{4}$	4	11 $\frac{1}{4}$	5	1	5	2	4	18				
15	5	3	5	4	5	5	5	6 $\frac{1}{4}$	5	5				
16	5	7 $\frac{1}{4}$	5	8 $\frac{1}{4}$	5	9 $\frac{1}{4}$	5	10 $\frac{1}{4}$	5	12				
17	5	11 $\frac{1}{2}$	6	0 $\frac{1}{2}$	6	1 $\frac{1}{2}$	6	2 $\frac{1}{2}$	5	19				
18	6	3 $\frac{1}{4}$	6	4 $\frac{1}{4}$	6	5 $\frac{1}{4}$	6	6 $\frac{1}{4}$	6	6				
19	6	7 $\frac{1}{4}$	6	8 $\frac{1}{4}$	6	10	6	11	6	13				
20	7	0	7	1	7	2	7	3 $\frac{1}{4}$	7	0				

At 7s. 6d. per Ton.														
Cwt.		Cwt. and $\frac{1}{4}$		Cwt. and $\frac{1}{2}$		Cwt. and $\frac{3}{4}$		Tons.						
s.	d.	s.	d.	s.	d.	s.	d.	£	s.	d.				
0	0	0	1	0	2 $\frac{1}{4}$	0	3 $\frac{1}{4}$	0	0	0				
0	4 $\frac{1}{2}$	0	5 $\frac{1}{2}$	0	6 $\frac{1}{2}$	0	7 $\frac{1}{2}$	0	7	6				
0	9	0	10	0	11 $\frac{1}{2}$	1	0 $\frac{1}{4}$	1	0	15				
1	1 $\frac{1}{2}$	1	2 $\frac{1}{2}$	1	3 $\frac{1}{2}$	1	4 $\frac{1}{2}$	1	2	6				
1	6	1	7	1	8 $\frac{1}{2}$	1	9 $\frac{1}{2}$	1	10	0				
1	10 $\frac{1}{2}$	2	0 $\frac{1}{2}$	2	1 $\frac{1}{2}$	2	2 $\frac{1}{2}$	2	17	6				
2	3	2	4	2	5 $\frac{1}{4}$	2	6 $\frac{1}{4}$	2	5	0				
2	7 $\frac{1}{2}$	2	8 $\frac{1}{2}$	2	9 $\frac{1}{2}$	2	10 $\frac{1}{2}$	2	12	6				
3	0	3	1	3	2 $\frac{1}{2}$	3	3 $\frac{1}{2}$	3	0	0				
3	4 $\frac{1}{2}$	3	5 $\frac{1}{2}$	3	6 $\frac{1}{2}$	3	7 $\frac{1}{2}$	3	7	6				
3	9	3	10	3	11 $\frac{1}{2}$	4	0 $\frac{1}{2}$	3	15	0				
4	1 $\frac{1}{2}$	4	2 $\frac{1}{2}$	4	3 $\frac{1}{2}$	4	4 $\frac{1}{2}$	4	2	6				
4	6	4	7	4	8 $\frac{1}{2}$	4	9 $\frac{1}{2}$	4	10	0				
4	10 $\frac{1}{2}$	4	11 $\frac{1}{2}$	5	0 $\frac{1}{2}$	5	1 $\frac{1}{2}$	4	17	6				
5	3	5	4	5	5 $\frac{1}{2}$	5	6 $\frac{1}{2}$	5	5	0				
5	7 $\frac{1}{2}$	5	8 $\frac{1}{2}$	5	9 $\frac{1}{2}$	5	10 $\frac{1}{2}$	5	12	6				
6	0	6	1	6	2 $\frac{1}{4}$	6	3 $\frac{1}{4}$	6	0	0				
6	4 $\frac{1}{2}$	6	5 $\frac{1}{2}$	6	6 $\frac{1}{2}$	6	7 $\frac{1}{2}$	6	7	6				
6	9	6	10	6	11 $\frac{1}{2}$	7	0 $\frac{1}{2}$	6	15	0				
7	1 $\frac{1}{2}$	7	2 $\frac{1}{2}$	7	3 $\frac{1}{2}$	7	4 $\frac{1}{2}$	7	2	6				
7	6	7	7	7	8 $\frac{1}{4}$	7	9 $\frac{1}{4}$	7	10	0				

"Try to think and act for yourself."

At 8s. per Ton.													At 8s. 4d. per Ton.												
Cwt.		Cwt. and $\frac{1}{4}$		Cwt. and $\frac{1}{2}$		Cwt. and $\frac{3}{4}$		Tons.			Cwt.		Cwt. and $\frac{1}{4}$		Cwt. and $\frac{1}{2}$		Cwt. and $\frac{3}{4}$		Tons.						
s.	d.	s.	d.	s.	d.	s.	d.	£	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	£	s.	d.				
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
1	0	4	0	0	6	0	7	0	8	0	0	5	0	6	0	7	0	8	0	8	4				
2	0	9	0	10	0	1	0	0	16	0	0	10	0	11	0	12	0	13	0	16	8				
3	1	2	1	3	1	4	1	1	6	1	1	3	1	4	1	5	1	6	1	5	0				
4	1	7	1	8	1	9	1	1	12	0	1	8	1	9	1	10	1	11	1	13	4				
5	2	0	2	1	2	2	2	2	8	2	2	6	2	7	2	8	2	9	2	10	0				
6	2	4	2	6	2	7	2	2	16	0	2	11	3	0	3	1	3	2	18	4	7				
7	2	9	2	10	3	0	3	3	4	0	3	4	3	5	3	6	3	7	3	6	8				
8	3	2	3	3	3	4	3	3	12	0	3	9	3	10	3	11	4	0	3	15	0				
9	3	7	4	1	4	2	4	4	8	0	4	2	4	3	4	4	5	4	3	4	10				
10	4	0	4	6	4	7	4	4	16	0	5	0	5	1	5	2	5	3	5	0	12				
11	4	4	4	6	4	7	4	4	8	0	5	5	5	6	5	7	5	8	5	8	4				
12	4	9	4	10	5	0	5	5	12	0	5	10	5	11	6	0	6	1	5	16	8				
13	5	2	5	3	5	4	5	6	5	4	0	5	5	6	5	7	5	8	5	8	4				
14	5	7	5	8	5	9	5	10	5	12	0	5	10	5	11	6	0	6	1	5	16	8			
15	6	0	6	1	6	6	6	6	3	6	0	6	3	6	4	6	5	6	6	5	0	13			
16	6	4	6	6	6	7	6	8	6	8	0	6	8	6	9	6	10	6	11	6	13	4			
17	6	9	6	10	7	0	7	1	6	16	0	7	1	7	2	7	3	7	4	7	1	8			
18	7	2	7	3	7	4	7	6	7	4	0	7	6	7	7	8	7	9	7	10	0	18			
19	7	7	7	8	7	9	7	10	7	12	0	7	11	8	0	8	1	8	2	7	18	4			
20	8	0	8	1	8	2	8	3	8	0	0	8	4	8	5	8	6	8	7	8	6	8			

"Cultivate perseverance and punctuality."

"To say little and perform much is the characteristic of a great mind."

At 8s. 6d. per Ton.										At 9s. per Ton.									
Cwt.		Cwt. and $\frac{1}{2}$		Cwt. and $\frac{1}{2}$		Cwt. and $\frac{1}{2}$		Tons.		Cwt.		Cwt. and $\frac{1}{2}$		Cwt. and $\frac{1}{2}$		Tons.			
s.	d.	s.	d.	s.	d.	s.	d.	£	s.	d.	s.	d.	s.	d.	s.	d.	£	s.	d.
0	0	0	0	0	1 $\frac{1}{2}$	0	2 $\frac{1}{2}$	0	0	0	0	0	1 $\frac{1}{2}$	0	2 $\frac{1}{2}$	0	0	0	0
1	0	0	5	0	6 $\frac{1}{2}$	0	7 $\frac{1}{2}$	0	9	0	5 $\frac{1}{2}$	0	6 $\frac{1}{2}$	0	8	0	9	0	0
2	0	10 $\frac{1}{2}$	0	11 $\frac{1}{2}$	1	0 $\frac{1}{2}$	1	2	0	17	0	10 $\frac{1}{2}$	1	0 $\frac{1}{2}$	1	1 $\frac{1}{2}$	1	2 $\frac{1}{2}$	0
3	1	3 $\frac{1}{2}$	1	4 $\frac{1}{2}$	1	5 $\frac{1}{2}$	1	7	1	5	6	1	4 $\frac{1}{2}$	1	5 $\frac{1}{2}$	1	7	1	8 $\frac{1}{2}$
4	1	8 $\frac{1}{2}$	1	9 $\frac{1}{2}$	1	11	2	0 $\frac{1}{2}$	1	14	0	1	9 $\frac{1}{2}$	1	11	2	0 $\frac{1}{2}$	1	16
5	2	1 $\frac{1}{2}$	2	2 $\frac{1}{2}$	2	4	2	5 $\frac{1}{2}$	2	2	6	2	3	2	4 $\frac{1}{2}$	2	5 $\frac{1}{2}$	2	7
6	2	6 $\frac{1}{2}$	2	7 $\frac{1}{2}$	2	9 $\frac{1}{2}$	2	10 $\frac{1}{2}$	2	11	0	2	8 $\frac{1}{2}$	2	9 $\frac{1}{2}$	2	11	3	0 $\frac{1}{2}$
7	2	11 $\frac{1}{2}$	3	1	3	2 $\frac{1}{2}$	3	3 $\frac{1}{2}$	2	19	6	3	1 $\frac{1}{2}$	3	3 $\frac{1}{2}$	3	4 $\frac{1}{2}$	3	5 $\frac{1}{2}$
8	3	4 $\frac{1}{2}$	3	6	3	7 $\frac{1}{2}$	3	8 $\frac{1}{2}$	3	8	0	3	7 $\frac{1}{2}$	3	8 $\frac{1}{2}$	3	10	3	11 $\frac{1}{2}$
9	3	10	3	11 $\frac{1}{2}$	4	0 $\frac{1}{2}$	4	1 $\frac{1}{2}$	3	16	6	4	0 $\frac{1}{2}$	4	2	4	3 $\frac{1}{2}$	4	4 $\frac{1}{2}$
10	4	3	4	4	4	5 $\frac{1}{2}$	4	6 $\frac{1}{2}$	4	5	0	4	6	4	7 $\frac{1}{2}$	4	8 $\frac{1}{2}$	4	10
11	4	8	4	9 $\frac{1}{2}$	4	10 $\frac{1}{2}$	5	0	4	13	6	4	11 $\frac{1}{2}$	5	0 $\frac{1}{2}$	5	2	5	3 $\frac{1}{2}$
12	5	1 $\frac{1}{2}$	5	2 $\frac{1}{2}$	5	3 $\frac{1}{2}$	5	5	5	2	0	5	4 $\frac{1}{2}$	5	6 $\frac{1}{2}$	5	7 $\frac{1}{2}$	5	8 $\frac{1}{2}$
13	5	6 $\frac{1}{2}$	5	7 $\frac{1}{2}$	5	8 $\frac{1}{2}$	5	10	5	10	6	5	10 $\frac{1}{2}$	5	11 $\frac{1}{2}$	6	1	6	2 $\frac{1}{2}$
14	5	11 $\frac{1}{2}$	6	0 $\frac{1}{2}$	6	2	6	3 $\frac{1}{2}$	5	19	0	6	3 $\frac{1}{2}$	6	5	6	6 $\frac{1}{2}$	6	7 $\frac{1}{2}$
15	6	4 $\frac{1}{2}$	6	5 $\frac{1}{2}$	6	7	6	8 $\frac{1}{2}$	6	7	6	6	9	6	10 $\frac{1}{2}$	6	11 $\frac{1}{2}$	7	1
16	6	9 $\frac{1}{2}$	6	10 $\frac{1}{2}$	7	0 $\frac{1}{2}$	7	1 $\frac{1}{2}$	6	16	0	7	2 $\frac{1}{2}$	7	3 $\frac{1}{2}$	7	5	7	6 $\frac{1}{2}$
17	7	2 $\frac{1}{2}$	7	4	7	5 $\frac{1}{2}$	7	6 $\frac{1}{2}$	7	4	6	7	7 $\frac{1}{2}$	7	9 $\frac{1}{2}$	7	10 $\frac{1}{2}$	7	11 $\frac{1}{2}$
18	7	7 $\frac{1}{2}$	7	9	7	10 $\frac{1}{2}$	7	11 $\frac{1}{2}$	7	13	0	8	1 $\frac{1}{2}$	8	2 $\frac{1}{2}$	8	4	8	5 $\frac{1}{2}$
19	8	1	8	2 $\frac{1}{2}$	8	3 $\frac{1}{2}$	8	4 $\frac{1}{2}$	8	1	6	8	6 $\frac{1}{2}$	8	8	8	9 $\frac{1}{2}$	8	10 $\frac{1}{2}$
20	8	6	8	7 $\frac{1}{2}$	8	8 $\frac{1}{2}$	8	9 $\frac{1}{2}$	8	10	0	9	0	9	1 $\frac{1}{2}$	9	2 $\frac{1}{2}$	9	4

"Knowledge is the treasure of the mind, discretion the key to it."

At 9s. 6d. per Ton.										At 10s. per Ton.									
Cwt.		Cwt. and $\frac{1}{2}$		Cwt. and $\frac{1}{2}$		Cwt. and $\frac{1}{2}$		Tons.		Cwt.		Cwt. and $\frac{1}{2}$		Cwt. and $\frac{1}{2}$		Tons.			
s.	d.	s.	d.	s.	d.	s.	d.	£	s.	d.	s.	d.	s.	d.	s.	d.	£	s.	d.
0	0	0	0	0	1 $\frac{1}{2}$	0	2 $\frac{1}{2}$	0	4 $\frac{1}{2}$	0	0	0	0	0	1 $\frac{1}{2}$	0	3	0	4 $\frac{1}{2}$
1	0	5 $\frac{1}{2}$	0	7	0	8 $\frac{1}{2}$	0	10	0	9	6	0	6	0	7 $\frac{1}{2}$	0	9	0	10 $\frac{1}{2}$
2	0	11 $\frac{1}{2}$	1	0 $\frac{1}{2}$	1	2 $\frac{1}{2}$	1	3 $\frac{1}{2}$	0	19	0	1	0	1	1 $\frac{1}{2}$	1	3	1	4 $\frac{1}{2}$
3	1	5	1	6 $\frac{1}{2}$	1	8	1	9 $\frac{1}{2}$	1	8	6	1	6	1	7 $\frac{1}{2}$	1	9	1	10 $\frac{1}{2}$
4	1	10 $\frac{1}{2}$	2	0 $\frac{1}{2}$	2	1 $\frac{1}{2}$	2	3	1	18	0	2	0	2	1 $\frac{1}{2}$	2	3	2	4 $\frac{1}{2}$
5	2	4 $\frac{1}{2}$	2	6	2	7 $\frac{1}{2}$	2	8 $\frac{1}{2}$	2	7	6	2	6	2	7 $\frac{1}{2}$	2	9	2	10 $\frac{1}{2}$
6	2	10 $\frac{1}{2}$	2	11 $\frac{1}{2}$	3	1	3	2 $\frac{1}{2}$	2	17	0	3	0	3	1 $\frac{1}{2}$	3	3	3	4 $\frac{1}{2}$
7	3	4	3	5 $\frac{1}{2}$	3	6 $\frac{1}{2}$	3	8 $\frac{1}{2}$	3	6	6	3	6	3	7 $\frac{1}{2}$	3	9	3	10 $\frac{1}{2}$
8	3	9 $\frac{1}{2}$	3	11	4	0 $\frac{1}{2}$	4	1 $\frac{1}{2}$	3	16	0	4	0	4	1 $\frac{1}{2}$	4	3	4	4 $\frac{1}{2}$
9	4	3 $\frac{1}{2}$	4	4 $\frac{1}{2}$	4	6 $\frac{1}{2}$	4	7 $\frac{1}{2}$	4	5	6	4	6	4	7 $\frac{1}{2}$	4	9	4	10 $\frac{1}{2}$
10	4	9	4	10 $\frac{1}{2}$	4	11 $\frac{1}{2}$	5	1 $\frac{1}{2}$	4	15	0	5	0	5	1 $\frac{1}{2}$	5	3	5	4 $\frac{1}{2}$
11	5	2 $\frac{1}{2}$	5	4	5	5 $\frac{1}{2}$	5	7	5	4	6	5	6	5	7 $\frac{1}{2}$	5	9	5	10 $\frac{1}{2}$
12	5	8 $\frac{1}{2}$	5	9 $\frac{1}{2}$	5	11 $\frac{1}{2}$	6	0 $\frac{1}{2}$	5	14	0	6	0	6	1 $\frac{1}{2}$	6	3	6	4 $\frac{1}{2}$
13	6	2	6	3 $\frac{1}{2}$	6	5	6	6 $\frac{1}{2}$	6	3	6	6	6	6	7 $\frac{1}{2}$	6	9	6	10 $\frac{1}{2}$
14	6	7 $\frac{1}{2}$	6	9 $\frac{1}{2}$	6	10 $\frac{1}{2}$	7	0	6	13	0	7	0	7	1 $\frac{1}{2}$	7	3	7	4 $\frac{1}{2}$
15	7	1 $\frac{1}{2}$	7	3	7	4 $\frac{1}{2}$	7	5 $\frac{1}{2}$	7	2	6	7	6	7	7 $\frac{1}{2}$	7	9	7	10 $\frac{1}{2}$
16	7	7 $\frac{1}{2}$	7	8 $\frac{1}{2}$	7	10 $\frac{1}{2}$	7	11 $\frac{1}{2}$	7	12	0	8	0	8	1 $\frac{1}{2}$	8	3	8	4 $\frac{1}{2}$
17	8	1	8	2 $\frac{1}{2}$	8	3 $\frac{1}{2}$	8	5 $\frac{1}{2}$	8	1	6	8	6	8	7 $\frac{1}{2}$	8	9	8	10 $\frac{1}{2}$
18	8	6 $\frac{1}{2}$	8	8	8	9 $\frac{1}{2}$	8	10 $\frac{1}{2}$	8	11	0	9	0	9	1 $\frac{1}{2}$	9	3	9	4 $\frac{1}{2}$
19	9	0 $\frac{1}{2}$	9	1 $\frac{1}{2}$	9	3 $\frac{1}{2}$	9	4 $\frac{1}{2}$	9	0	6	9	6	9	7 $\frac{1}{2}$	9	9	9	10 $\frac{1}{2}$
20	9	6	9	7 $\frac{1}{2}$	9	8 $\frac{1}{2}$	9	10 $\frac{1}{2}$	9	10	0	10	0	10	1 $\frac{1}{2}$	10	3	10	4 $\frac{1}{2}$

"Example has a more powerful influence than precept."

"Time lost cannot be regained."

At 10s. 6d. per Ton.													At 10s. 10d. per Ton.												
		Cwt. and $\frac{1}{2}$		Cwt. and $\frac{1}{2}$		Cwt. and $\frac{1}{2}$		Tons.						Cwt. and $\frac{1}{2}$		Cwt. and $\frac{1}{2}$		Cwt. and $\frac{1}{2}$		Tons.					
	s. d.	s. d.	s. d.	s. d.	£ s. d.	s. d.	s. d.	£ s. d.	s. d.	s. d.	s. d.	s. d.	£ s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	£ s. d.	s. d.	s. d.	£ s. d.	s. d.	s. d.	£ s. d.
0	0 0	0 0	0 1 $\frac{1}{2}$	0 3 $\frac{1}{2}$	0 4 $\frac{1}{2}$	0 0	0 0	0 0 0	0 0	0 0	0 1 $\frac{1}{2}$	0 3 $\frac{1}{2}$	0 4 $\frac{1}{2}$	0 0	0 0	0 1 $\frac{1}{2}$	0 3 $\frac{1}{2}$	0 4 $\frac{1}{2}$	0 0	0 0	0 0	0 0	0 0	0 0	0 0
1	0 6 $\frac{1}{2}$	0 8	0 9 $\frac{1}{2}$	0 11 $\frac{1}{2}$	0 11	0 10	6 0	0 10 6	0 6 $\frac{1}{2}$	0 8	0 9 $\frac{1}{2}$	0 11 $\frac{1}{2}$	0 11	0 6 $\frac{1}{2}$	0 8	0 9 $\frac{1}{2}$	0 11 $\frac{1}{2}$	0 11	0 10	6 0	0 10	6 0	0 10	6 0	0 10
2	1 0 $\frac{1}{2}$	1 2 $\frac{1}{2}$	1 3 $\frac{1}{2}$	1 5 $\frac{1}{2}$	1 1	1 0	1 0	1 1 0	1 1	1 2 $\frac{1}{2}$	1 3 $\frac{1}{2}$	1 5 $\frac{1}{2}$	1 1	1 1	1 2 $\frac{1}{2}$	1 3 $\frac{1}{2}$	1 5 $\frac{1}{2}$	1 1	1 0	1 0	1 1	1 0	1 1	1 0	1 1
3	1 7	1 8 $\frac{1}{2}$	1 10	1 11 $\frac{1}{2}$	1 11	1 6	1 11	6 1	1 7 $\frac{1}{2}$	1 9	1 10 $\frac{1}{2}$	1 11 $\frac{1}{2}$	1 11	1 7 $\frac{1}{2}$	1 9	1 10 $\frac{1}{2}$	1 11 $\frac{1}{2}$	1 11	1 6	1 11	6 1	1 12	6 1	1 12	6 1
4	2 1 $\frac{1}{2}$	2 2 $\frac{1}{2}$	2 4 $\frac{1}{2}$	2 6	2 2	2 0	2 2	2 2 0	2 2	2 3 $\frac{1}{2}$	2 5 $\frac{1}{2}$	2 6 $\frac{1}{2}$	2 3	2 2	2 3 $\frac{1}{2}$	2 5 $\frac{1}{2}$	2 6 $\frac{1}{2}$	2 3	2 0	2 2	2 2	2 3	2 4	2 3	2 4
5	2 7 $\frac{1}{2}$	2 9	2 10 $\frac{1}{2}$	2 12	2 12	6 2	2 12	6 2	2 8 $\frac{1}{2}$	2 10	2 11 $\frac{1}{2}$	2 12	2 12	2 8 $\frac{1}{2}$	2 10	2 11 $\frac{1}{2}$	2 12	2 12	6 2	2 12	6 2	2 14	2 12	2 14	2 12
6	3 1 $\frac{1}{2}$	3 3 $\frac{1}{2}$	3 5	3 6 $\frac{1}{2}$	3 3	3 0	3 3	3 0	3 3	3 4 $\frac{1}{2}$	3 6 $\frac{1}{2}$	3 7 $\frac{1}{2}$	3 3	3 3	3 4 $\frac{1}{2}$	3 6 $\frac{1}{2}$	3 7 $\frac{1}{2}$	3 3	3 0	3 3	3 4	3 5	3 0	3 3	3 4
7	3 8	3 9 $\frac{1}{2}$	3 11 $\frac{1}{2}$	4 0 $\frac{1}{2}$	3 13	6 3	3 13	6 3	3 9 $\frac{1}{2}$	3 11	4 0 $\frac{1}{2}$	4 2 $\frac{1}{2}$	3 15	3 9 $\frac{1}{2}$	3 11	4 0 $\frac{1}{2}$	4 2 $\frac{1}{2}$	3 15	10 7	3 15	10 7	3 15	10 7	3 15	10 7
8	4 2 $\frac{1}{2}$	4 4	4 5 $\frac{1}{2}$	4 7	4 4	4 0	4 4	4 0	4 4	4 5 $\frac{1}{2}$	4 7	4 8 $\frac{1}{2}$	4 6	4 4	4 5 $\frac{1}{2}$	4 7	4 8 $\frac{1}{2}$	4 6	4 0	4 4	4 5	4 6	4 0	4 4	4 5
9	4 8 $\frac{1}{2}$	4 10 $\frac{1}{2}$	4 11 $\frac{1}{2}$	5 1 $\frac{1}{2}$	4 14	6 4	4 14	6 4	4 10 $\frac{1}{2}$	5 0	5 1 $\frac{1}{2}$	5 3 $\frac{1}{2}$	4 17	4 10 $\frac{1}{2}$	5 0	5 1 $\frac{1}{2}$	5 3 $\frac{1}{2}$	4 17	6 4	4 17	6 4	4 17	6 4	4 17	6 4
10	5 3	5 4 $\frac{1}{2}$	5 6 $\frac{1}{2}$	5 7 $\frac{1}{2}$	5 5	5 0	5 5	5 0	5 5	5 6 $\frac{1}{2}$	5 8 $\frac{1}{2}$	5 9 $\frac{1}{2}$	5 8	5 5	5 6 $\frac{1}{2}$	5 8 $\frac{1}{2}$	5 9 $\frac{1}{2}$	5 8	5 0	5 5	5 6	5 8	5 0	5 5	5 6
11	5 9 $\frac{1}{2}$	5 11	6 0 $\frac{1}{2}$	6 2	5 15	6 5	5 15	6 5	5 11 $\frac{1}{2}$	6 1	6 2 $\frac{1}{2}$	6 4 $\frac{1}{2}$	5 19	5 9 $\frac{1}{2}$	5 11	6 0 $\frac{1}{2}$	6 2	5 19	2 11	5 19	2 11	5 19	2 11	5 19	2 11
12	6 3 $\frac{1}{2}$	6 5 $\frac{1}{2}$	6 6 $\frac{1}{2}$	6 8 $\frac{1}{2}$	6 6	6 0	6 6	6 0	6 6	6 7 $\frac{1}{2}$	6 9 $\frac{1}{2}$	6 10 $\frac{1}{2}$	6 10	6 6	6 7 $\frac{1}{2}$	6 9 $\frac{1}{2}$	6 10 $\frac{1}{2}$	6 10	6 0	6 6	6 7	6 10	6 0	6 6	6 7
13	6 10	6 11 $\frac{1}{2}$	7 1	7 2 $\frac{1}{2}$	6 16	6 7	6 16	6 7	7 0 $\frac{1}{2}$	7 2	7 3 $\frac{1}{2}$	7 5 $\frac{1}{2}$	7 0	7 0 $\frac{1}{2}$	7 2	7 3 $\frac{1}{2}$	7 5 $\frac{1}{2}$	7 0	7 0	7 0	7 0	7 0	7 0	7 0	7 0
14	7 4 $\frac{1}{2}$	7 5 $\frac{1}{2}$	7 7 $\frac{1}{2}$	7 9	7 7	7 0	7 7	7 0	7 7	7 8 $\frac{1}{2}$	7 10 $\frac{1}{2}$	7 11 $\frac{1}{2}$	7 11	7 7	7 8 $\frac{1}{2}$	7 10 $\frac{1}{2}$	7 11 $\frac{1}{2}$	7 11	7 0	7 7	7 8	7 11	7 0	7 7	7 8
15	7 10 $\frac{1}{2}$	8 0	8 1 $\frac{1}{2}$	8 3 $\frac{1}{2}$	7 17	6 8	7 17	6 8	8 1 $\frac{1}{2}$	8 3	8 4 $\frac{1}{2}$	8 6 $\frac{1}{2}$	8 2	8 1 $\frac{1}{2}$	8 3	8 4 $\frac{1}{2}$	8 6 $\frac{1}{2}$	8 2	6 8	8 2	6 8	8 2	6 8	8 2	6 8
16	8 4 $\frac{1}{2}$	8 6 $\frac{1}{2}$	8 8	8 9 $\frac{1}{2}$	8 8	8 0	8 8	8 0	8 8	8 9 $\frac{1}{2}$	8 11 $\frac{1}{2}$	9 0 $\frac{1}{2}$	8 13	8 8	8 9 $\frac{1}{2}$	8 11 $\frac{1}{2}$	9 0 $\frac{1}{2}$	8 13	4 16	8 13	4 16	8 13	4 16	8 13	4 16
17	8 11	9 0 $\frac{1}{2}$	9 2 $\frac{1}{2}$	9 3 $\frac{1}{2}$	8 18	6 9	9 2 $\frac{1}{2}$	6 9	9 2 $\frac{1}{2}$	9 4	9 5 $\frac{1}{2}$	9 7 $\frac{1}{2}$	9 4	9 2 $\frac{1}{2}$	9 4	9 5 $\frac{1}{2}$	9 7 $\frac{1}{2}$	9 4	2 17	9 4	2 17	9 4	2 17	9 4	2 17
18	9 5 $\frac{1}{2}$	9 7	9 8 $\frac{1}{2}$	9 10	9 9	9 0	9 9	9 0	9 9	9 10 $\frac{1}{2}$	10 0 $\frac{1}{2}$	10 1 $\frac{1}{2}$	9 15	9 9	9 10 $\frac{1}{2}$	10 0 $\frac{1}{2}$	10 1 $\frac{1}{2}$	9 15	0 18	9 15	0 18	9 15	0 18	9 15	0 18
19	9 11 $\frac{1}{2}$	10 1 $\frac{1}{2}$	10 2 $\frac{1}{2}$	10 4 $\frac{1}{2}$	9 19	6 10	10 3 $\frac{1}{2}$	6 10	10 3 $\frac{1}{2}$	10 5	10 6 $\frac{1}{2}$	10 8 $\frac{1}{2}$	10 5	10 3 $\frac{1}{2}$	10 5	10 6 $\frac{1}{2}$	10 8 $\frac{1}{2}$	10 5	10 5	10 5	10 5	10 5	10 5	10 5	10 5
20	10 6	10 7 $\frac{1}{2}$	10 9 $\frac{1}{2}$	10 10 $\frac{1}{2}$	10 10	6 0	10 10	6 0	10 10	10 11 $\frac{1}{2}$	11 1 $\frac{1}{2}$	11 2 $\frac{1}{2}$	10 16	10 10	10 11 $\frac{1}{2}$	11 1 $\frac{1}{2}$	11 2 $\frac{1}{2}$	10 16	8 20	10 16	8 20	10 16	8 20	10 16	8 20

If possible, reply to all letters the same day you receive them.—SALT.

At 11s. per Ton.													At 11s. 6d. per Ton.														
Cwt.		Cwt. and $\frac{1}{2}$		Cwt. and $\frac{1}{2}$		Cwt. and $\frac{3}{4}$		Tons.					Cwt.		Cwt. and $\frac{1}{2}$		Cwt. and $\frac{1}{2}$		Cwt. and $\frac{3}{4}$		Tons.						
	s.	d.	s.	d.	s.	d.	s.	d.	£	s.	d.		s.	d.	s.	d.	s.	d.	£	s.	d.		s.	d.		s.	d.
0	0	0	0	1 $\frac{1}{2}$	0	3 $\frac{1}{2}$	0	5	0	0	0	0	0	0	0	1 $\frac{1}{2}$	0	3 $\frac{1}{2}$	0	5 $\frac{1}{2}$	0	0	0	0	0	0	0
1	0	6 $\frac{1}{2}$	0	8 $\frac{1}{2}$	0	10	0	11 $\frac{1}{2}$	0	11	0	0	11	0	0	0	7	0	8 $\frac{1}{2}$	0	10 $\frac{1}{2}$	1	0	11	6	0	1
2	1	1 $\frac{1}{2}$	1	2 $\frac{1}{2}$	1	4 $\frac{1}{2}$	1	6 $\frac{1}{2}$	1	2	0	1	1 $\frac{1}{2}$	1	3 $\frac{1}{2}$	1	5 $\frac{1}{2}$	1	7	1	7	1	3	0	2	3	2
3	1	7 $\frac{1}{2}$	1	9 $\frac{1}{2}$	1	11	2	0 $\frac{1}{2}$	1	13	0	1	8 $\frac{1}{2}$	1	10 $\frac{1}{2}$	2	0	2	1 $\frac{1}{2}$	1	14	6	3	4	5	6	3
4	2	2 $\frac{1}{2}$	2	4	2	5 $\frac{1}{2}$	2	7 $\frac{1}{2}$	2	4	0	2	3 $\frac{1}{2}$	2	5 $\frac{1}{2}$	2	7	2	8 $\frac{1}{2}$	2	6	0	4	5	6	4	4
5	2	9	2	10 $\frac{1}{2}$	3	0 $\frac{1}{2}$	3	2	2	15	0	2	10 $\frac{1}{2}$	3	0 $\frac{1}{2}$	3	2	3	3 $\frac{1}{2}$	2	17	6	5	6	5	5	5
6	3	3 $\frac{1}{2}$	3	5 $\frac{1}{2}$	3	7	3	8 $\frac{1}{2}$	3	6	0	3	5 $\frac{1}{2}$	3	7	3	8 $\frac{1}{2}$	3	10 $\frac{1}{2}$	3	9	0	6	6	6	6	6
7	3	10 $\frac{1}{2}$	3	11 $\frac{1}{2}$	4	1 $\frac{1}{2}$	4	3 $\frac{1}{2}$	3	17	0	4	0 $\frac{1}{2}$	4	2	4	3 $\frac{1}{2}$	4	5 $\frac{1}{2}$	4	0	6	7	7	7	7	7
8	4	4 $\frac{1}{2}$	4	6 $\frac{1}{2}$	4	8	4	9 $\frac{1}{2}$	4	8	0	4	7 $\frac{1}{2}$	4	9	4	10 $\frac{1}{2}$	5	0 $\frac{1}{2}$	4	12	0	8	8	8	8	8
9	4	11 $\frac{1}{2}$	5	1	5	2 $\frac{1}{2}$	5	4 $\frac{1}{2}$	4	19	0	5	2	5	3 $\frac{1}{2}$	5	5 $\frac{1}{2}$	5	7 $\frac{1}{2}$	5	3	6	9	9	9	9	9
10	5	6	5	7 $\frac{1}{2}$	5	9 $\frac{1}{2}$	5	11	5	10	0	5	9	5	10 $\frac{1}{2}$	6	0 $\frac{1}{2}$	6	2 $\frac{1}{2}$	5	16	0	10	10	10	10	10
11	6	0 $\frac{1}{2}$	6	2 $\frac{1}{2}$	6	4	6	5 $\frac{1}{2}$	6	1	0	6	4	6	5 $\frac{1}{2}$	6	7 $\frac{1}{2}$	6	9	6	6	6	11	11	11	11	11
12	6	7 $\frac{1}{2}$	6	8 $\frac{1}{2}$	6	10 $\frac{1}{2}$	7	0 $\frac{1}{2}$	6	12	0	6	10 $\frac{1}{2}$	7	0 $\frac{1}{2}$	7	2 $\frac{1}{2}$	7	4	6	18	0	12	12	12	12	12
13	7	1 $\frac{1}{2}$	7	3 $\frac{1}{2}$	7	5	7	6 $\frac{1}{2}$	7	3	0	7	5 $\frac{1}{2}$	7	7 $\frac{1}{2}$	7	9 $\frac{1}{2}$	7	10 $\frac{1}{2}$	7	9	6	13	13	13	13	13
14	7	8 $\frac{1}{2}$	7	10	7	11 $\frac{1}{2}$	8	1 $\frac{1}{2}$	7	14	0	8	0 $\frac{1}{2}$	8	2 $\frac{1}{2}$	8	4	8	6 $\frac{1}{2}$	8	1	0	14	14	14	14	14
15	8	3	8	4 $\frac{1}{2}$	8	6 $\frac{1}{2}$	8	8	8	5	0	8	7 $\frac{1}{2}$	8	9 $\frac{1}{2}$	8	11	9	0 $\frac{1}{2}$	8	12	6	15	15	15	15	15
16	8	9 $\frac{1}{2}$	8	11 $\frac{1}{2}$	9	1	9	2 $\frac{1}{2}$	8	16	0	9	2 $\frac{1}{2}$	9	4	9	5 $\frac{1}{2}$	9	7 $\frac{1}{2}$	9	4	0	16	16	16	16	16
17	9	4 $\frac{1}{2}$	9	5 $\frac{1}{2}$	9	7 $\frac{1}{2}$	9	9 $\frac{1}{2}$	9	7	0	9	9 $\frac{1}{2}$	9	11	10	0 $\frac{1}{2}$	10	2 $\frac{1}{2}$	9	15	6	17	17	17	17	17
18	9	10 $\frac{1}{2}$	10	0	10	2	10	3 $\frac{1}{2}$	9	18	0	10	4 $\frac{1}{2}$	10	6	10	7 $\frac{1}{2}$	10	9 $\frac{1}{2}$	10	7	0	18	18	18	18	18
19	10	5 $\frac{1}{2}$	10	7 $\frac{1}{2}$	10	8 $\frac{1}{2}$	10	10 $\frac{1}{2}$	10	9	0	10	11	11	0 $\frac{1}{2}$	11	2 $\frac{1}{2}$	11	4 $\frac{1}{2}$	10	18	6	19	19	19	19	19
20	11	0	11	1 $\frac{1}{2}$	11	3 $\frac{1}{2}$	11	5 $\frac{1}{2}$	11	0	0	11	6	11	7 $\frac{1}{2}$	11	9 $\frac{1}{2}$	11	11 $\frac{1}{2}$	11	10	0	20	20	20	20	20

To a man full of questions make no answer.—PLATO.

At 11s. 8d. per Ton.												At 12s. per Ton.											
Cwt.		Cwt. and $\frac{1}{2}$	Cwt. and $\frac{1}{2}$	Cwt. and $\frac{3}{4}$	Tons.		Cwt.		Cwt. and $\frac{1}{2}$	Cwt. and $\frac{1}{2}$	Cwt. and $\frac{3}{4}$	Tons.											
s.	d.	s.	d.	s.	d.	£	s.	d.	s.	d.	s.	d.	£	s.	d.								
0	0	0	13	0	3	0	0	0	0	0	0	0	0	0	0								
1	0	0	8	0	10	1	0	11	8	0	7	0	9	0	12								
2	1	2	1	3	1	7	1	3	4	1	2	1	4	1	4								
3	1	9	1	10	2	0	2	2	1	15	0	1	9	1	16								
4	2	4	2	5	2	7	2	9	2	6	8	2	4	2	8								
5	2	11	3	0	3	2	3	4	2	18	4	3	0	3	0								
6	3	6	3	7	3	9	3	11	3	10	0	3	7	3	12								
7	4	1	4	2	4	4	4	6	4	1	8	4	2	4	4								
8	4	8	4	9	4	11	5	1	4	13	4	4	9	4	16								
9	5	3	5	4	5	6	5	8	5	5	0	5	4	5	8								
10	5	10	5	11	6	1	6	3	5	16	8	6	0	6	0								
11	6	5	6	6	8	6	10	6	8	4	6	7	1	6	12								
12	7	0	7	1	7	3	7	5	7	0	0	7	2	7	4								
13	7	7	7	8	7	10	8	0	7	11	8	7	9	7	16								
14	8	2	8	3	8	5	8	7	8	3	4	8	4	8	8								
15	8	9	8	10	9	0	9	2	8	15	0	9	0	9	0								
16	9	4	9	5	9	7	9	9	9	6	8	9	7	9	12								
17	9	11	10	0	10	2	10	4	9	18	4	10	2	10	4								
18	10	6	10	7	10	9	10	11	10	10	0	10	9	10	16								
19	11	1	11	2	11	4	11	6	11	1	8	11	4	11	8								
20	11	8	11	9	11	11	12	1	11	13	4	12	0	12	0								

He is a valuable servant who can perform his duties well without asking his employers how to execute them.—SALT.

At 12s. 6d. per Ton.												At 13s. per Ton.													
Cwt.		Cwt. and $\frac{1}{2}$		Cwt. and $\frac{1}{2}$		Cwt. and $\frac{3}{4}$		Tons.		Cwt.		Cwt. and $\frac{1}{2}$		Cwt. and $\frac{1}{2}$		Cwt. and $\frac{3}{4}$		Tons.							
s.	d.	s.	d.	s.	d.	s.	d.	£	s.	d.	s.	d.	s.	d.	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1	0	7	0	9	0	11	1	1	0	12	6	0	7	0	9	0	11	1	1	0	13	0	1	0	1
2	1	3	1	4	1	6	1	8	1	5	0	1	3	1	5	1	7	1	9	1	6	0	2	1	2
3	1	10	2	0	2	2	2	2	4	1	17	6	1	11	2	1	3	2	5	1	19	0	3	1	3
4	2	6	2	7	2	9	2	11	2	10	0	2	7	2	9	2	11	3	1	2	12	0	4	2	4
5	3	1	3	3	3	5	3	7	3	2	6	3	3	3	5	3	7	3	8	3	5	0	5	3	5
6	3	9	3	10	4	0	4	2	3	15	0	3	10	4	0	4	2	4	4	3	18	0	6	4	6
7	4	4	4	6	4	8	4	10	4	7	6	4	6	4	8	4	10	5	0	4	11	0	7	5	7
8	5	0	5	1	5	3	5	5	5	0	0	5	2	5	4	5	6	5	8	5	4	0	8	6	8
9	5	7	5	9	5	11	6	1	5	12	6	5	10	6	0	6	2	6	4	5	17	0	9	7	9
10	6	3	6	4	6	6	8	6	6	5	0	6	6	6	8	6	10	6	11	6	10	0	10	8	10
11	6	10	7	0	7	7	7	4	6	17	6	7	1	7	3	7	5	7	7	7	3	0	11	9	11
12	7	6	7	7	7	9	7	11	7	10	0	7	9	7	11	8	1	8	3	7	16	0	12	10	12
13	8	1	8	3	8	5	8	7	8	2	6	8	5	8	7	8	9	8	11	8	9	0	13	11	13
14	8	9	8	10	9	0	9	2	8	15	0	9	1	9	3	9	5	9	7	9	2	0	14	12	14
15	9	4	9	6	9	8	9	10	9	7	6	9	9	9	11	10	1	10	2	9	15	0	15	13	15
16	10	0	10	1	10	3	10	5	10	0	0	10	4	10	6	10	8	10	10	10	8	0	16	14	16
17	10	7	10	9	10	11	11	1	10	12	6	11	0	11	2	11	4	11	6	11	1	0	17	15	17
18	11	3	11	4	11	6	11	8	11	5	0	11	8	11	10	12	0	12	2	11	14	0	18	16	18
19	11	10	12	0	12	2	12	4	11	17	6	12	4	12	6	12	8	12	10	12	7	0	19	17	19
20	12	6	12	7	12	9	12	11	12	10	0	13	0	13	2	13	4	13	5	13	0	0	20	18	20

It is not he who makes the greatest bustle that does the most work.—SALT.

"Punctuality gives weight to character."

At 13s. 4d. per Ton.										At 13s. 6d. per Ton.									
Cwt.		Cwt. and $\frac{1}{2}$		Cwt. and $\frac{1}{2}$		Cwt. and $\frac{3}{4}$		Tons.		Cwt.		Cwt. and $\frac{1}{2}$		Cwt. and $\frac{1}{2}$		Cwt. and $\frac{3}{4}$		Tons.	
s.	d.	s.	d.	s.	d.	s.	d.	£	s.	d.	s.	d.	s.	d.	s.	d.	£	s.	d.
0	0	0	0	0	4	0	6	0	0	0	0	0	0	0	0	0	0	0	0
1	0	8	0	10	1	0	1	2	0	13	4	0	8	0	10	1	2	0	13
2	1	4	1	6	1	8	1	10	1	6	8	1	4	1	6	1	10	1	7
3	2	0	2	2	2	4	2	6	2	0	0	2	0	2	2	4	2	6	2
4	2	8	2	10	3	0	3	2	2	13	4	2	8	2	10	3	2	2	14
5	3	4	3	6	3	8	3	10	3	6	8	3	4	3	6	3	10	3	7
6	4	0	4	2	4	4	4	6	4	0	0	4	0	4	2	4	4	6	4
7	4	8	4	10	5	0	5	2	4	13	4	4	8	4	10	5	2	4	14
8	5	4	5	6	5	8	5	10	5	6	8	5	4	5	6	5	10	5	8
9	6	0	6	2	6	4	6	6	6	0	0	6	1	6	3	6	5	6	7
10	6	8	6	10	7	0	7	2	6	13	4	6	9	6	11	7	1	7	3
11	7	4	7	6	7	8	7	10	7	6	8	7	5	7	7	9	7	11	7
12	8	0	8	2	8	4	8	6	8	0	0	8	1	8	3	8	5	8	7
13	8	8	8	10	9	0	9	2	8	13	4	8	9	8	11	9	1	9	8
14	9	4	9	6	9	8	9	10	9	6	8	9	5	9	7	9	11	9	9
15	10	0	10	2	10	4	10	6	10	0	0	10	1	10	3	10	5	10	7
16	10	8	10	10	11	0	11	2	10	13	4	10	9	10	11	11	1	11	3
17	11	4	11	6	11	8	11	10	11	6	8	11	5	11	7	11	9	11	11
18	12	0	12	2	12	4	12	6	12	0	0	12	1	12	3	12	5	12	7
19	12	8	12	10	13	0	13	2	12	13	4	12	10	13	0	13	2	13	4
20	13	4	13	6	13	8	13	10	13	6	8	13	6	13	8	13	10	14	0

"Tact is the essence of worldly experience."

At 14s. per Ton.										At 14s. 6d. per Ton.									
Cwt.		Cwt. and $\frac{1}{2}$		Cwt. and $\frac{1}{2}$		Cwt. and $\frac{3}{4}$		Tons.		Cwt.		Cwt. and $\frac{1}{2}$		Cwt. and $\frac{1}{2}$		Cwt. and $\frac{3}{4}$		Tons.	
s.	d.	s.	d.	s.	d.	s.	d.	£	s.	d.	s.	d.	s.	d.	s.	d.	£	s.	d.
0	0	0	0	2	0	4	0	6	0	0	0	0	0	2	0	4	0	6	0
1	0	8	0	10	1	0	1	2	0	14	0	0	8	0	10	1	1	1	3
2	1	4	1	7	1	9	1	11	1	8	0	1	5	1	7	1	9	2	0
3	2	1	2	3	2	5	2	7	2	2	0	2	2	2	4	2	6	2	3
4	2	9	2	11	3	1	3	4	2	16	0	2	10	3	1	3	3	5	2
5	3	6	3	8	3	10	4	0	3	10	0	3	7	3	9	3	11	4	2
6	4	2	4	4	4	6	4	8	4	4	0	4	4	4	6	4	8	4	7
7	4	10	5	1	5	3	5	5	4	18	0	5	1	5	3	5	5	7	5
8	5	7	5	9	5	11	6	1	5	12	0	5	9	5	11	6	2	6	4
9	6	3	6	5	6	7	6	10	6	6	0	6	6	6	8	6	10	7	0
10	7	0	7	2	7	4	7	6	7	0	0	7	3	7	5	7	7	9	7
11	7	8	7	10	8	0	8	2	7	14	0	7	11	8	1	8	4	8	6
12	8	4	8	7	8	9	8	11	8	8	0	8	8	8	10	9	0	9	3
13	9	1	9	3	9	5	9	7	9	2	0	9	5	9	7	9	9	11	9
14	9	9	9	11	10	1	10	4	9	16	0	10	1	10	4	10	6	10	8
15	10	6	10	8	10	10	11	0	10	10	0	10	10	11	0	11	2	11	5
16	11	2	11	4	11	6	11	8	11	4	0	11	7	11	9	11	11	12	1
17	11	10	12	1	12	3	12	5	11	18	0	12	4	12	6	12	8	12	10
18	12	7	12	9	12	11	13	1	12	12	0	13	0	13	2	13	5	13	7
19	13	3	13	5	13	7	13	10	13	6	0	13	9	13	11	14	1	14	3
20	14	0	14	2	14	4	14	6	14	0	0	14	6	14	8	14	10	15	0

Be strict in keeping your engagements.—SALT.

To a man full of questions make no answer.—PLATO.

At 11s. 8d. per Ton.										At 12s. per Ton.									
Cwt.		Cwt. and $\frac{1}{2}$		Cwt. and $\frac{1}{2}$		Cwt. and $\frac{3}{4}$		Tons.		Cwt.		Cwt. and $\frac{1}{2}$		Cwt. and $\frac{1}{2}$		Cwt. and $\frac{3}{4}$		Tons.	
s.	d.	s.	d.	s.	d.	s.	d.	£	s.	d.	s.	d.	s.	d.	s.	d.	£	s.	d.
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	0	7	0	8	0	10	0	11	8	0	7	0	9	0	10	1	0	12
2	1	2	1	3	1	5	1	7	1	3	1	2	1	4	1	6	1	7	2
3	1	9	1	10	2	0	2	2	1	15	0	1	9	1	11	2	3	1	16
4	2	4	2	5	2	7	2	9	2	6	8	2	4	2	6	2	8	2	10
5	2	11	3	0	3	2	3	4	2	18	4	3	0	3	1	3	3	5	3
6	3	6	3	7	3	9	3	11	3	10	0	3	7	3	9	3	10	4	0
7	4	1	4	2	4	4	4	6	4	1	8	4	2	4	4	6	4	7	4
8	4	8	4	9	4	11	5	1	4	13	4	4	9	4	11	5	3	4	16
9	5	3	5	4	5	6	5	8	5	5	0	5	4	5	6	5	8	5	8
10	5	10	5	11	6	1	6	3	5	16	8	6	0	6	1	6	5	6	0
11	6	5	6	6	6	8	6	10	6	8	4	6	7	6	9	6	10	7	0
12	7	0	7	7	7	3	7	5	7	0	0	7	2	7	4	7	6	7	4
13	7	7	7	8	7	10	8	0	7	11	8	7	9	7	11	8	1	8	3
14	8	2	8	8	8	5	8	7	8	3	4	8	4	8	6	8	8	10	8
15	8	9	8	10	9	0	9	2	8	15	0	9	0	9	1	9	3	9	5
16	9	4	9	5	9	7	9	9	9	6	8	9	7	9	9	10	10	0	9
17	9	11	10	0	10	2	10	4	9	18	4	10	2	10	4	10	6	10	4
18	10	6	10	7	10	9	10	11	10	10	0	10	9	10	11	11	1	11	3
19	11	1	11	2	11	4	11	6	11	1	8	11	4	11	6	11	8	11	10
20	11	8	11	9	11	11	12	1	11	13	4	12	0	12	1	12	5	12	0

He is a valuable servant who can perform his duties well without asking his employers how to execute them.—SALT.

At 12s. 6d. per Ton.										At 13s. per Ton.									
Cwt.		Cwt. and $\frac{1}{2}$		Cwt. and $\frac{1}{2}$		Cwt. and $\frac{3}{4}$		Tons.		Cwt.		Cwt. and $\frac{1}{2}$		Cwt. and $\frac{1}{2}$		Cwt. and $\frac{3}{4}$		Tons.	
s.	d.	s.	d.	s.	d.	s.	d.	£	s.	d.	s.	d.	s.	d.	s.	d.	£	s.	d.
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	7	0	9	0	11	1	1	0	12	6	0	7	0	9	0	11	1	13
2	1	3	1	4	1	6	1	8	1	5	0	1	3	1	5	1	7	1	9
3	1	10	2	0	2	2	2	4	1	17	6	1	11	2	1	2	3	2	5
4	2	6	2	7	2	9	2	11	2	10	0	2	7	2	9	2	11	3	1
5	3	1	3	3	3	5	3	7	3	2	6	3	3	3	5	3	7	3	8
6	3	9	3	10	4	0	4	2	3	15	0	3	10	4	0	4	2	4	4
7	4	4	4	6	4	8	4	10	4	7	6	4	6	4	8	4	10	5	0
8	5	0	5	1	5	3	5	5	5	0	0	5	2	5	4	5	6	5	4
9	5	7	5	9	5	11	6	1	5	12	6	5	10	6	0	6	2	6	4
10	6	3	6	4	6	6	6	8	6	5	0	6	6	6	8	6	10	6	11
11	6	10	7	0	7	2	7	4	6	17	6	7	1	7	3	7	5	7	7
12	7	6	7	7	7	9	7	11	7	10	0	7	9	7	11	8	1	8	3
13	8	1	8	3	8	5	8	7	8	2	6	8	5	8	7	8	9	8	11
14	8	9	8	10	9	0	9	2	8	15	0	9	1	9	3	9	5	9	7
15	9	4	9	6	9	8	9	10	9	7	6	9	9	9	11	10	1	10	2
16	10	0	10	1	10	3	10	5	10	0	0	10	4	10	6	10	8	10	10
17	10	7	10	9	10	11	11	1	10	12	6	11	0	11	2	11	4	11	6
18	11	3	11	4	11	6	11	8	11	5	0	11	8	11	10	12	0	12	2
19	11	10	12	0	12	2	12	4	11	17	6	12	4	12	6	12	8	12	10
20	12	6	12	7	12	9	12	11	12	10	0	13	0	13	2	13	4	13	5

It is not he who makes the greatest bustle that does the most work.—SALT.

"Punctuality gives weight to character."

At 13s. 4d. per Ton.										At 13s. 6d. per Ton.									
Cwt.		Cwt. and $\frac{1}{2}$		Cwt. and $\frac{1}{2}$		Cwt. and $\frac{3}{4}$		Tons.		Cwt.		Cwt. and $\frac{1}{2}$		Cwt. and $\frac{1}{2}$		Cwt. and $\frac{3}{4}$		Tons.	
s.	d.	s.	d.	s.	d.	s.	d.	£	s.	d.	s.	d.	s.	d.	s.	d.	£	s.	d.
0	0	0	0	0	4	0	6	0	0	0	0	0	0	4	0	6	0	0	0
1	0	8	0	10	1	0	1	2	0	13	4	0	8	0	10	1	2	0	13
2	1	4	1	6	1	8	1	10	1	6	8	1	4	1	6	1	10	1	7
3	2	0	2	2	2	4	2	6	2	0	0	2	0	2	2	4	2	6	2
4	2	8	2	10	3	0	3	2	2	13	4	2	8	2	10	3	2	2	14
5	3	4	3	6	3	8	3	10	3	6	8	3	4	3	6	3	10	3	7
6	4	0	4	2	4	4	4	6	4	0	0	4	0	4	2	4	4	6	4
7	4	8	4	10	5	0	5	2	4	13	4	4	8	4	10	5	2	4	14
8	5	4	5	6	5	8	5	10	5	6	8	5	4	5	6	5	10	5	8
9	6	0	6	2	6	4	6	6	6	0	0	6	1	6	3	6	6	6	1
10	6	8	6	10	7	0	7	2	6	13	4	6	9	6	11	7	1	7	3
11	7	4	7	6	7	8	7	10	7	6	8	7	5	7	7	9	7	11	7
12	8	0	8	2	8	4	8	6	8	0	0	8	1	8	3	8	5	8	2
13	8	8	8	10	9	0	9	2	8	13	4	8	9	8	11	9	11	9	8
14	9	4	9	6	9	8	9	10	9	6	8	9	5	9	7	9	9	9	11
15	10	0	10	2	10	4	10	6	10	0	0	10	1	10	3	10	5	10	2
16	10	8	10	10	11	0	11	2	10	13	4	10	9	10	11	11	1	11	3
17	11	4	11	6	11	8	11	10	11	6	8	11	5	11	7	11	9	11	6
18	12	0	12	2	12	4	12	6	12	0	0	12	1	12	3	12	5	12	7
19	12	8	12	10	13	0	13	2	12	13	4	12	10	13	0	13	2	13	4
20	13	4	13	6	13	8	13	10	13	6	8	13	6	13	8	13	10	14	0

"Tact is the essence of worldly experience."

At 14s. per Ton.										At 14s. 6d. per Ton.									
Cwt.		Cwt. and $\frac{1}{2}$		Cwt. and $\frac{1}{2}$		Cwt. and $\frac{3}{4}$		Tons.		Cwt.		Cwt. and $\frac{1}{2}$		Cwt. and $\frac{1}{2}$		Cwt. and $\frac{3}{4}$		Tons.	
s.	d.	s.	d.	s.	d.	s.	d.	£	s.	d.	s.	d.	s.	d.	s.	d.	£	s.	d.
0	0	0	0	2	0	4	0	6	0	0	0	0	0	2	0	4	0	6	0
1	0	8	0	10	1	0	1	2	0	14	0	0	8	0	10	1	1	1	3
2	1	4	1	7	1	9	1	11	1	8	0	1	5	1	7	1	9	2	0
3	2	1	2	3	2	5	2	7	2	2	0	2	2	2	4	2	6	2	3
4	2	9	2	11	3	1	3	4	2	16	0	2	10	3	1	3	3	4	5
5	3	6	3	8	3	10	4	0	3	10	0	3	7	3	9	3	11	4	2
6	4	2	4	4	4	6	4	8	4	4	0	4	4	4	6	4	8	4	10
7	4	10	5	1	5	3	5	5	4	18	0	5	1	5	3	5	5	5	7
8	5	7	5	9	5	11	6	1	5	12	0	5	9	5	11	6	2	6	4
9	6	3	6	5	6	7	6	10	6	6	0	6	6	6	8	6	10	7	0
10	7	0	7	2	7	4	7	6	7	0	0	7	3	7	5	7	7	9	7
11	7	8	7	10	8	0	8	2	7	14	0	7	11	8	1	8	4	8	6
12	8	4	8	7	8	9	8	11	8	8	0	8	8	8	10	9	0	9	3
13	9	1	9	3	9	5	9	7	9	2	0	9	5	9	7	9	9	9	11
14	9	9	9	11	10	1	10	4	9	16	0	10	1	10	4	10	6	10	8
15	10	6	10	8	10	10	11	0	10	10	0	10	10	11	0	11	5	10	17
16	11	2	11	4	11	6	11	8	11	4	0	11	7	11	9	11	11	12	1
17	11	10	12	1	12	3	12	5	11	18	0	12	4	12	6	12	8	12	10
18	12	7	12	9	12	11	13	1	12	12	0	13	0	13	2	13	5	13	7
19	13	3	13	5	13	7	13	10	13	6	0	13	9	13	11	14	1	14	3
20	14	0	14	2	14	4	14	6	14	0	0	14	6	14	8	14	10	15	0

Be strict in keeping your engagements.—SALT.

"Contracts, to be binding, should be mutually advantageous."

At 18s. 4d. per Ton.										At 18s. 6d. per Ton.									
Cwt.		Cwt. and $\frac{1}{4}$		Cwt. and $\frac{1}{2}$		Cwt. and $\frac{3}{4}$		Tons.		Cwt.		Cwt. and $\frac{1}{4}$		Cwt. and $\frac{1}{2}$		Cwt. and $\frac{3}{4}$		Tons.	
s.	d.	s.	d.	s.	d.	s.	d.	£	s.	d.	s.	d.	s.	d.	s.	d.	£	s.	d.
0	0	0	2 $\frac{3}{4}$	0	5 $\frac{1}{2}$	0	8 $\frac{1}{2}$	0	0	0	0	0	2 $\frac{3}{4}$	0	5 $\frac{1}{2}$	0	8 $\frac{1}{2}$	0	0
1	0	1	1 $\frac{1}{2}$	1	4 $\frac{1}{2}$	1	7 $\frac{1}{2}$	0	18	4	0	1	1 $\frac{1}{2}$	1	4 $\frac{1}{2}$	1	7 $\frac{1}{2}$	0	18
2	1	10	2	0 $\frac{3}{4}$	2	3 $\frac{1}{2}$	2	6 $\frac{1}{2}$	1	16	8	1	10 $\frac{1}{2}$	2	1	2	3 $\frac{1}{2}$	2	6 $\frac{1}{2}$
3	2	9	2	11 $\frac{1}{2}$	3	2 $\frac{1}{2}$	3	5 $\frac{1}{2}$	2	15	0	2	9 $\frac{1}{2}$	3	0	3	2 $\frac{1}{2}$	3	5 $\frac{1}{2}$
4	3	8	3	10 $\frac{3}{4}$	4	1 $\frac{1}{2}$	4	4 $\frac{1}{2}$	3	13	4	3	8 $\frac{3}{4}$	3	11 $\frac{1}{2}$	4	2	4	4 $\frac{1}{2}$
5	4	7	4	9 $\frac{1}{2}$	5	0 $\frac{1}{2}$	5	3 $\frac{1}{2}$	4	11	8	4	7 $\frac{1}{2}$	4	10 $\frac{1}{2}$	5	1	5	3 $\frac{1}{2}$
6	5	6	5	8 $\frac{3}{4}$	5	11 $\frac{1}{2}$	6	2 $\frac{1}{2}$	5	10	0	5	6 $\frac{3}{4}$	5	9 $\frac{1}{2}$	6	0 $\frac{1}{2}$	6	3
7	6	5	6	7 $\frac{3}{4}$	6	10 $\frac{3}{4}$	7	1 $\frac{1}{2}$	6	8	4	6	5 $\frac{3}{4}$	6	8 $\frac{3}{4}$	6	11 $\frac{1}{2}$	7	2
8	7	4	7	6 $\frac{3}{4}$	7	9 $\frac{1}{2}$	8	0 $\frac{1}{2}$	7	6	8	7	4 $\frac{3}{4}$	7	7 $\frac{1}{2}$	7	10 $\frac{1}{2}$	8	1
9	8	3	8	5 $\frac{3}{4}$	8	8 $\frac{3}{4}$	8	11 $\frac{1}{2}$	8	5	0	8	4	8	6 $\frac{3}{4}$	8	9 $\frac{1}{2}$	9	0 $\frac{1}{2}$
10	9	2	9	4 $\frac{3}{4}$	9	7 $\frac{3}{4}$	9	10 $\frac{1}{2}$	9	3	4	9	3	9	5 $\frac{3}{4}$	9	8 $\frac{1}{2}$	9	11 $\frac{1}{2}$
11	10	1	10	3 $\frac{3}{4}$	10	6 $\frac{3}{4}$	10	9 $\frac{1}{2}$	10	1	8	10	2	10	4 $\frac{3}{4}$	10	7 $\frac{1}{2}$	10	10 $\frac{1}{2}$
12	11	0	11	2 $\frac{3}{4}$	11	5 $\frac{3}{4}$	11	8 $\frac{1}{2}$	11	0	0	11	1 $\frac{1}{2}$	11	4	11	6 $\frac{3}{4}$	11	9 $\frac{1}{2}$
13	11	11	12	1 $\frac{3}{4}$	12	4 $\frac{3}{4}$	12	7 $\frac{1}{2}$	11	18	4	12	0 $\frac{1}{2}$	12	3	12	5 $\frac{3}{4}$	12	8 $\frac{1}{2}$
14	12	10	13	0 $\frac{3}{4}$	13	3 $\frac{3}{4}$	13	6 $\frac{1}{2}$	12	16	8	12	11 $\frac{1}{2}$	13	2 $\frac{1}{2}$	13	5	13	7 $\frac{1}{2}$
15	13	9	13	11 $\frac{1}{2}$	14	2 $\frac{1}{2}$	14	5 $\frac{1}{2}$	13	15	0	13	10 $\frac{1}{2}$	14	1 $\frac{1}{2}$	14	4	14	6 $\frac{1}{2}$
16	14	8	14	10 $\frac{3}{4}$	15	1 $\frac{1}{2}$	15	4 $\frac{1}{2}$	14	13	4	14	9 $\frac{1}{2}$	15	0 $\frac{1}{2}$	15	3 $\frac{1}{2}$	15	6
17	15	7	15	9 $\frac{3}{4}$	16	0 $\frac{3}{4}$	16	3 $\frac{1}{2}$	15	11	8	15	8 $\frac{3}{4}$	15	11 $\frac{1}{2}$	16	2 $\frac{1}{2}$	16	5
18	16	6	16	8 $\frac{3}{4}$	16	11 $\frac{1}{2}$	17	2 $\frac{1}{2}$	16	10	0	16	7 $\frac{3}{4}$	16	10 $\frac{1}{2}$	17	1 $\frac{1}{2}$	17	4
19	17	5	17	7 $\frac{3}{4}$	17	10 $\frac{3}{4}$	18	1 $\frac{1}{2}$	17	8	4	17	7	17	9 $\frac{1}{2}$	18	0 $\frac{1}{2}$	18	3 $\frac{1}{2}$
20	18	4	18	6 $\frac{3}{4}$	18	9 $\frac{1}{2}$	19	0 $\frac{1}{2}$	18	6	8	18	6	18	8 $\frac{3}{4}$	18	11 $\frac{1}{2}$	19	2 $\frac{1}{2}$

Attend to your duties in preference to recreation.—SALT.

At 19s. per Ton.										At 19s. 6d. per Ton.									
Cwt.		Cwt. and $\frac{1}{4}$		Cwt. and $\frac{1}{2}$		Cwt. and $\frac{3}{4}$		Tons.		Cwt.		Cwt. and $\frac{1}{4}$		Cwt. and $\frac{1}{2}$		Cwt. and $\frac{3}{4}$		Tons.	
s.	d.	s.	d.	s.	d.	s.	d.	£	s.	d.	s.	d.	s.	d.	s.	d.	£	s.	d.
0	0	0	2 $\frac{3}{4}$	0	5 $\frac{1}{2}$	0	8 $\frac{1}{2}$	0	0	0	0	0	3	0	5 $\frac{1}{2}$	0	8 $\frac{1}{2}$	0	0
1	0	11 $\frac{1}{2}$	1	2 $\frac{1}{2}$	1	5	1	8	0	19	0	0	11 $\frac{1}{2}$	1	2 $\frac{1}{2}$	1	5 $\frac{1}{2}$	1	8 $\frac{1}{2}$
2	1	10 $\frac{1}{2}$	2	1 $\frac{1}{2}$	2	4 $\frac{1}{2}$	2	7 $\frac{1}{2}$	1	18	0	1	11 $\frac{1}{2}$	2	2 $\frac{1}{2}$	2	5 $\frac{1}{2}$	2	8 $\frac{1}{2}$
3	2	10 $\frac{1}{2}$	3	1	3	4	3	6 $\frac{1}{2}$	2	17	0	2	11	3	2	3	5	3	7 $\frac{1}{2}$
4	3	9 $\frac{1}{2}$	4	0 $\frac{3}{4}$	4	3 $\frac{1}{4}$	4	6 $\frac{1}{4}$	3	16	0	3	10 $\frac{3}{4}$	4	1 $\frac{3}{4}$	4	4 $\frac{3}{4}$	4	7 $\frac{1}{4}$
5	4	9	4	11 $\frac{1}{4}$	5	2 $\frac{3}{4}$	5	5 $\frac{1}{4}$	4	15	0	4	10 $\frac{1}{2}$	5	1 $\frac{1}{2}$	5	4 $\frac{1}{2}$	5	7 $\frac{1}{4}$
6	5	8 $\frac{1}{2}$	5	11 $\frac{1}{4}$	6	2	6	5	5	14	0	5	10 $\frac{1}{4}$	6	1	6	4	6	7
7	6	7 $\frac{1}{2}$	6	10 $\frac{1}{4}$	7	1 $\frac{1}{2}$	7	4 $\frac{1}{2}$	6	13	0	6	10	7	0 $\frac{3}{4}$	7	3 $\frac{3}{4}$	7	6 $\frac{1}{2}$
8	7	7 $\frac{1}{4}$	7	10	8	1	8	3 $\frac{1}{2}$	7	12	0	7	9 $\frac{1}{2}$	8	0 $\frac{3}{4}$	8	3 $\frac{3}{4}$	8	6 $\frac{1}{4}$
9	8	6 $\frac{1}{2}$	8	9 $\frac{1}{2}$	9	0 $\frac{1}{2}$	9	3 $\frac{1}{4}$	8	11	0	8	9 $\frac{1}{4}$	9	0 $\frac{1}{4}$	9	3 $\frac{1}{4}$	9	6
10	9	6	9	8 $\frac{1}{2}$	9	11 $\frac{1}{2}$	10	2 $\frac{1}{2}$	9	10	0	9	9	10	0	10	2 $\frac{1}{2}$	10	5 $\frac{1}{2}$
11	10	5 $\frac{1}{2}$	10	8 $\frac{1}{2}$	10	11	11	2	10	9	0	10	8 $\frac{1}{2}$	10	11 $\frac{1}{2}$	11	2 $\frac{1}{2}$	11	5 $\frac{1}{2}$
12	11	4 $\frac{1}{2}$	11	7 $\frac{1}{2}$	11	10 $\frac{1}{2}$	12	1 $\frac{1}{2}$	11	8	0	11	8 $\frac{1}{2}$	11	11 $\frac{1}{2}$	12	2 $\frac{1}{2}$	12	5 $\frac{1}{2}$
13	12	4 $\frac{1}{2}$	12	7	12	10	13	0 $\frac{1}{2}$	12	7	0	12	8	12	11	13	2	13	4 $\frac{1}{2}$
14	13	3 $\frac{1}{2}$	13	6 $\frac{1}{2}$	13	9 $\frac{1}{4}$	14	0 $\frac{1}{4}$	13	6	0	13	7 $\frac{1}{2}$	13	10 $\frac{1}{4}$	14	1 $\frac{1}{4}$	14	4 $\frac{1}{4}$
15	14	3	14	5 $\frac{1}{2}$	14	8 $\frac{1}{2}$	14	11 $\frac{1}{2}$	14	5	0	14	7 $\frac{1}{4}$	14	10 $\frac{1}{4}$	15	1 $\frac{1}{4}$	15	4 $\frac{1}{4}$
16	15	2 $\frac{1}{2}$	15	5 $\frac{1}{4}$	15	8	15	11	15	4	0	15	7 $\frac{1}{4}$	15	10	16	1	16	4
17	16	1 $\frac{1}{2}$	16	4 $\frac{1}{4}$	16	7 $\frac{1}{4}$	16	10 $\frac{1}{4}$	16	3	0	16	7	16	9 $\frac{1}{4}$	17	0 $\frac{1}{4}$	17	3 $\frac{1}{4}$
18	17	1 $\frac{1}{4}$	17	4	17	7	17	9 $\frac{1}{4}$	17	2	0	17	6 $\frac{1}{2}$	17	9 $\frac{1}{4}$	18	0 $\frac{1}{2}$	18	3 $\frac{1}{2}$
19	18	0 $\frac{1}{2}$	18	3 $\frac{1}{2}$	18	6 $\frac{1}{4}$	18	9 $\frac{1}{4}$	18	1	0	18	6 $\frac{1}{4}$	18	9 $\frac{1}{4}$	19	0 $\frac{1}{4}$	19	3
20	19	0	19	2 $\frac{1}{2}$	19	5 $\frac{1}{2}$	19	8 $\frac{1}{2}$	19	0	0	19	6	19	9	19	11 $\frac{1}{2}$	20	2 $\frac{1}{2}$

He who neglects his business will soon have none to attend to.—SALT.

Never postpone until to-morrow what should be done to day.—SALT.

At 20s. per Ton.											At 22s. 6d. per Ton.											
Cwt.			Cwt. and $\frac{1}{2}$		Cwt. and $\frac{1}{2}$		Cwt. and $\frac{1}{2}$		Tons.		Cwt.			Cwt. and $\frac{1}{2}$		Cwt. and $\frac{1}{2}$		Cwt. and $\frac{1}{2}$		Tons.		
	s.	d.	s.	d.	s.	d.	s.	d.	£	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	£	s.	d.
0	0	0	0	3	0	6	0	9	0	0	0	0	0	0	3	0	6	0	10	0	0	0
1	1	0	1	3	1	6	1	9	1	0	0	1	1	1	4	1	8	1	11	1	2	6
2	2	0	2	3	2	6	2	9	2	0	0	2	3	2	6	2	9	3	1	2	5	0
3	3	0	3	3	3	6	3	9	3	0	0	3	4	3	7	3	11	4	2	3	7	6
4	4	0	4	3	4	6	4	9	4	0	0	4	6	4	9	5	0	5	4	4	10	0
5	5	0	5	3	5	6	5	9	5	0	0	5	7	5	10	6	2	6	5	5	12	6
6	6	0	6	3	6	6	6	9	6	0	0	6	9	7	0	7	3	7	7	6	15	0
7	7	0	7	3	7	6	7	9	7	0	0	7	10	8	1	8	5	8	8	7	17	6
8	8	0	8	3	8	6	8	9	8	0	0	9	0	9	3	9	6	9	10	9	0	0
9	9	0	9	3	9	6	9	9	9	0	0	10	1	10	4	10	8	10	11	10	2	6
10	10	0	10	3	10	6	10	9	10	0	0	11	3	11	6	11	9	12	1	11	5	0
11	11	0	11	3	11	6	11	9	11	0	0	12	4	12	7	12	11	13	2	12	7	6
12	12	0	12	3	12	6	12	9	12	0	0	13	6	13	9	14	0	14	4	13	10	0
13	13	0	13	3	13	6	13	9	13	0	0	14	7	14	10	15	2	15	5	14	12	6
14	14	0	14	3	14	6	14	9	14	0	0	15	9	16	0	16	3	16	7	15	15	0
15	15	0	15	3	15	6	15	9	15	0	0	16	10	17	1	17	5	17	8	16	17	6
16	16	0	16	3	16	6	16	9	16	0	0	18	0	18	3	18	6	18	10	18	0	0
17	17	0	17	3	17	6	17	9	17	0	0	19	1	19	4	19	8	19	11	19	2	6
18	18	0	18	3	18	6	18	9	18	0	0	20	3	20	6	20	9	21	1	20	5	0
19	19	0	19	3	19	6	19	9	19	0	0	21	4	21	7	21	11	22	2	21	7	6
20	20	0	20	3	20	6	20	9	20	0	0	22	6	22	9	23	0	23	4	22	10	0

"Drunkenness is an egg from which all vices may be hatched."

At 25s. per Ton.											At 27s. 6d. per Ton.												
Cwt.		Cwt. and $\frac{1}{2}$		Cwt. and $\frac{1}{2}$		Cwt. and $\frac{1}{2}$		Tons.			Cwt.		Cwt. and $\frac{1}{2}$		Cwt. and $\frac{1}{2}$		Cwt. and $\frac{1}{2}$		Tons.				
	s.	d.	s.	d.	s.	d.	s.	d.	£	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	£	s.	d.	
0	0	0	0	3 $\frac{1}{2}$	0	7	0	11 $\frac{1}{2}$	0	0	0	0	0	4	0	8 $\frac{1}{2}$	1	0 $\frac{1}{2}$	0	0	0	0	0
1	1	3	1	6 $\frac{1}{2}$	1	10 $\frac{1}{2}$	2	2 $\frac{1}{2}$	1	5	0	1	4 $\frac{1}{2}$	1	8 $\frac{1}{2}$	2	0 $\frac{1}{2}$	2	4 $\frac{1}{2}$	1	7	6	1
2	2	6	2	9 $\frac{1}{2}$	3	1 $\frac{1}{2}$	3	5 $\frac{1}{2}$	2	10	0	2	9	3	1	3	5 $\frac{1}{2}$	3	9 $\frac{1}{2}$	2	15	0	2
3	3	9	4	0 $\frac{1}{2}$	4	4 $\frac{1}{2}$	4	8 $\frac{1}{2}$	3	15	0	4	1 $\frac{1}{2}$	4	5 $\frac{1}{2}$	4	9 $\frac{1}{2}$	5	1 $\frac{1}{2}$	4	2	6	3
4	5	0	5	3 $\frac{1}{2}$	5	7 $\frac{1}{2}$	5	11 $\frac{1}{2}$	5	0	0	5	6	5	10	6	2	6	6	5	10	0	4
5	6	3	6	6 $\frac{1}{2}$	6	10 $\frac{1}{2}$	7	2 $\frac{1}{2}$	6	5	0	6	10 $\frac{1}{2}$	7	2 $\frac{1}{2}$	7	6 $\frac{1}{2}$	7	10 $\frac{1}{2}$	6	17	6	5
6	7	6	7	9 $\frac{1}{2}$	8	1	8	5	7	10	0	8	3	8	7	8	11 $\frac{1}{2}$	9	3 $\frac{1}{2}$	8	5	0	6
7	8	9	9	0 $\frac{1}{2}$	9	4 $\frac{1}{2}$	9	8 $\frac{1}{2}$	8	15	0	9	7 $\frac{1}{2}$	9	11 $\frac{1}{2}$	10	3 $\frac{1}{2}$	10	7 $\frac{1}{2}$	9	12	6	7
8	10	0	10	3 $\frac{1}{2}$	10	7 $\frac{1}{2}$	10	11 $\frac{1}{2}$	10	0	0	11	0	11	4	11	8 $\frac{1}{2}$	12	0 $\frac{1}{2}$	11	0	0	8
9	11	3	11	6 $\frac{1}{2}$	11	10 $\frac{1}{2}$	12	2 $\frac{1}{2}$	11	5	0	12	4 $\frac{1}{2}$	12	8 $\frac{1}{2}$	13	0 $\frac{1}{2}$	13	4 $\frac{1}{2}$	12	7	6	9
10	12	6	12	9 $\frac{1}{2}$	13	1 $\frac{1}{2}$	13	5 $\frac{1}{2}$	12	10	0	13	9	14	1	14	5 $\frac{1}{2}$	14	9 $\frac{1}{2}$	13	15	0	10
11	13	9	14	0 $\frac{1}{2}$	14	4 $\frac{1}{2}$	14	8 $\frac{1}{2}$	13	15	0	15	1 $\frac{1}{2}$	15	5 $\frac{1}{2}$	15	9 $\frac{1}{2}$	16	1 $\frac{1}{2}$	15	2	6	11
12	15	0	15	3 $\frac{1}{2}$	15	7 $\frac{1}{2}$	15	11 $\frac{1}{2}$	15	0	0	16	6	16	10	17	2	17	6 $\frac{1}{2}$	16	10	0	12
13	16	3	16	6 $\frac{1}{2}$	16	10 $\frac{1}{2}$	17	2 $\frac{1}{2}$	16	5	0	17	10 $\frac{1}{2}$	18	2 $\frac{1}{2}$	18	6 $\frac{1}{2}$	18	10 $\frac{1}{2}$	17	17	6	13
14	17	6	17	9 $\frac{1}{2}$	18	1 $\frac{1}{2}$	18	5 $\frac{1}{2}$	17	10	0	19	3	19	7	19	11 $\frac{1}{2}$	20	3 $\frac{1}{2}$	19	5	0	14
15	18	9	19	0 $\frac{1}{2}$	19	4 $\frac{1}{2}$	19	8 $\frac{1}{2}$	18	15	0	20	7 $\frac{1}{2}$	20	11 $\frac{1}{2}$	21	3 $\frac{1}{2}$	21	7 $\frac{1}{2}$	20	12	6	15
16	20	0	20	3 $\frac{1}{2}$	20	7 $\frac{1}{2}$	20	11 $\frac{1}{2}$	20	0	0	22	0	22	4	22	8 $\frac{1}{2}$	23	0 $\frac{1}{2}$	22	0	0	16
17	21	3	21	6 $\frac{1}{2}$	21	10 $\frac{1}{2}$	22	2 $\frac{1}{2}$	21	5	0	23	4 $\frac{1}{2}$	23	8 $\frac{1}{2}$	24	0 $\frac{1}{2}$	24	4 $\frac{1}{2}$	23	7	6	17
18	22	6	22	9 $\frac{1}{2}$	23	1 $\frac{1}{2}$	23	5 $\frac{1}{2}$	22	10	0	24	9	25	1	25	5 $\frac{1}{2}$	25	9 $\frac{1}{2}$	24	15	0	18
19	23	9	24	0 $\frac{1}{2}$	24	4 $\frac{1}{2}$	24	8 $\frac{1}{2}$	23	15	0	26	1 $\frac{1}{2}$	26	5 $\frac{1}{2}$	26	9 $\frac{1}{2}$	27	1 $\frac{1}{2}$	26	2	6	19
20	25	0	25	3 $\frac{1}{2}$	25	7 $\frac{1}{2}$	25	11 $\frac{1}{2}$	25	0	0	27	6	27	10	28	2 $\frac{1}{2}$	28	6 $\frac{1}{2}$	27	10	0	20

An industrious man produces great results by method and despatch.—SALT.

Many complain of a bad memory, who in reality want a better judgment.—SALT.

At 30s. per Ton.										At 35s. per Ton.									
Cwt.		Cwt. and $\frac{1}{2}$		Cwt. and $\frac{1}{2}$		Cwt. and $\frac{1}{2}$		Tons.		Cwt.		Cwt. and $\frac{1}{2}$		Cwt. and $\frac{1}{2}$		Cwt. and $\frac{1}{2}$		Tons.	
s.	d.	s.	d.	s.	d.	s.	d.	£	s.	d.	s.	d.	s.	d.	s.	d.	£	s.	d.
0	0	0	4	0	9	1	1	0	0	0	0	0	5	0	10	1	3	0	0
1	1	6	1	10	2	2	7	1	10	0	1	9	2	2	2	7	3	0	1
2	3	0	3	4	3	4	1	3	0	3	6	3	11	4	4	9	3	10	0
3	4	6	4	10	5	5	7	4	10	5	3	5	8	6	1	6	6	5	0
4	6	0	6	4	6	6	9	7	1	6	0	7	5	7	10	8	3	7	0
5	7	6	7	10	8	8	3	8	7	7	10	8	9	9	7	10	0	8	15
6	9	0	9	4	9	9	10	1	9	0	10	6	10	11	4	11	9	10	10
7	10	6	10	10	11	3	11	7	10	10	12	3	12	8	13	13	6	12	5
8	12	0	12	4	12	9	13	1	12	0	14	0	14	5	14	10	15	3	14
9	13	6	13	10	14	3	14	7	13	10	15	9	16	2	16	7	17	0	15
10	15	0	15	4	15	9	16	1	15	0	17	6	17	11	18	4	18	9	17
11	16	6	16	10	17	3	17	7	16	10	19	3	19	8	20	1	20	6	19
12	18	0	18	4	18	9	19	1	18	0	21	0	21	5	21	10	22	3	21
13	19	6	19	10	20	3	20	7	19	10	22	9	23	2	23	7	24	0	22
14	21	0	21	4	21	9	22	1	21	0	24	6	24	11	25	4	25	9	24
15	22	6	22	10	23	3	23	7	22	10	26	3	26	8	27	1	27	6	26
16	24	0	24	4	24	9	25	1	24	0	28	0	28	5	28	10	29	3	28
17	25	6	25	10	26	3	26	7	25	10	29	9	30	2	30	7	31	0	29
18	27	0	27	4	27	9	28	1	27	0	31	6	31	11	32	4	32	9	31
19	28	6	28	10	29	3	29	7	28	10	33	3	33	8	34	1	34	6	33
20	30	0	30	4	30	9	31	1	30	0	35	0	35	5	35	10	36	3	35

"Be as careful of the property of others as you would of your own."

At 40s. per Ton.										At 45s. per Ton.									
Cwt.		Cwt. and $\frac{1}{2}$		Cwt. and $\frac{1}{2}$		Cwt. and $\frac{1}{2}$		Tons.		Cwt.		Cwt. and $\frac{1}{2}$		Cwt. and $\frac{1}{2}$		Cwt. and $\frac{1}{2}$		Tons.	
s.	d.	s.	d.	s.	d.	s.	d.	£	s.	d.	s.	d.	s.	d.	s.	d.	£	s.	d.
0	0	0	6	1	0	1	6	0	0	0	0	0	6	1	1	8	0	0	0
1	2	0	2	6	3	3	6	2	0	0	2	3	2	9	3	4	3	11	2
2	4	0	4	6	5	0	6	4	0	0	4	6	5	0	5	7	6	2	4
3	6	0	6	6	7	0	7	6	6	0	6	9	7	3	7	10	8	5	6
4	8	0	8	6	9	0	9	6	8	0	9	0	9	6	10	1	10	8	9
5	10	0	10	6	11	0	11	6	10	0	11	3	11	9	12	4	12	11	11
6	12	0	12	6	13	0	13	6	12	0	13	6	14	0	14	7	15	2	13
7	14	0	14	6	15	0	15	6	14	0	15	9	16	3	16	10	17	5	15
8	16	0	16	6	17	0	17	6	16	0	18	0	18	6	19	1	19	8	18
9	18	0	18	6	19	0	19	6	18	0	20	3	20	9	21	4	21	11	20
10	20	0	20	6	21	0	21	6	20	0	22	6	23	0	23	7	24	2	22
11	22	0	22	6	23	0	23	6	22	0	24	9	25	3	25	10	26	5	24
12	24	0	24	6	25	0	25	6	24	0	27	0	27	6	28	1	28	8	27
13	26	0	26	6	27	0	27	6	26	0	29	3	29	9	30	4	30	11	29
14	28	0	28	6	29	0	29	6	28	0	31	6	32	0	32	7	33	2	31
15	30	0	30	6	31	0	31	6	30	0	33	9	34	3	34	10	35	5	33
16	32	0	32	6	33	0	33	6	32	0	36	0	36	6	37	1	37	8	36
17	34	0	34	6	35	0	35	6	34	0	38	3	38	9	39	4	39	11	38
18	36	0	36	6	37	0	37	6	36	0	40	6	41	0	41	7	42	2	40
19	38	0	38	6	39	0	39	6	38	0	42	9	43	3	43	10	44	5	42
20	40	0	40	6	41	0	41	6	40	0	45	0	45	6	46	1	46	8	45

Keep a place for everything, and everything in its place.—SALT.

Fix a time for transacting each part of your duties, and take care so to execute them.—SALT.

At 50s. per Ton.										At 55s. per Ton.									
Cwt.		Cwt. and $\frac{1}{2}$		Cwt. and $\frac{1}{2}$		Cwt. and $\frac{1}{2}$		Tons.		Cwt.		Cwt. and $\frac{1}{2}$		Cwt. and $\frac{1}{2}$		Cwt. and $\frac{1}{2}$		Tons.	
s.	d.	s.	d.	s.	d.	s.	d.	£	s.	d.	s.	d.	s.	d.	s.	d.	£	s.	d.
0	0	0	0	7 $\frac{1}{2}$	1	3	1	10 $\frac{1}{2}$	0	0	0	0	0	0	0	0	0	0	0
1	2	6	3	1 $\frac{1}{2}$	3	9	4	4 $\frac{1}{2}$	2	10	0	2	9	3	5 $\frac{1}{2}$	4	1 $\frac{1}{2}$	4	9 $\frac{1}{2}$
2	5	0	5	7 $\frac{1}{2}$	6	3	6	10 $\frac{1}{2}$	5	0	0	5	6	6	2 $\frac{1}{2}$	6	10 $\frac{1}{2}$	7	6 $\frac{1}{2}$
3	7	6	8	1 $\frac{1}{2}$	8	9	9	4 $\frac{1}{2}$	7	10	0	8	3	8	11 $\frac{1}{2}$	9	7 $\frac{1}{2}$	10	3 $\frac{1}{2}$
4	10	0	10	7 $\frac{1}{2}$	11	3	11	10 $\frac{1}{2}$	10	0	0	11	0	11	8 $\frac{1}{2}$	12	4 $\frac{1}{2}$	13	0 $\frac{1}{2}$
5	12	6	13	1 $\frac{1}{2}$	13	9	14	4 $\frac{1}{2}$	12	10	0	13	9	14	5 $\frac{1}{2}$	15	1 $\frac{1}{2}$	15	9 $\frac{1}{2}$
6	15	0	15	7 $\frac{1}{2}$	16	3	16	10 $\frac{1}{2}$	15	0	0	16	6	17	2 $\frac{1}{2}$	17	10 $\frac{1}{2}$	18	6 $\frac{1}{2}$
7	17	6	18	1 $\frac{1}{2}$	18	9	19	4 $\frac{1}{2}$	17	10	0	19	3	19	11 $\frac{1}{2}$	20	7 $\frac{1}{2}$	21	3 $\frac{1}{2}$
8	20	0	20	7 $\frac{1}{2}$	21	3	21	10 $\frac{1}{2}$	20	0	0	22	0	22	8 $\frac{1}{2}$	23	4 $\frac{1}{2}$	24	0 $\frac{1}{2}$
9	22	6	23	1 $\frac{1}{2}$	23	9	24	4 $\frac{1}{2}$	22	10	0	24	9	25	5 $\frac{1}{2}$	26	1 $\frac{1}{2}$	26	9 $\frac{1}{2}$
10	25	0	25	7 $\frac{1}{2}$	26	3	26	10 $\frac{1}{2}$	25	0	0	27	6	28	2 $\frac{1}{2}$	28	10 $\frac{1}{2}$	29	6 $\frac{1}{2}$
11	27	6	28	1 $\frac{1}{2}$	28	9	29	4 $\frac{1}{2}$	27	10	0	30	3	30	11 $\frac{1}{2}$	31	7 $\frac{1}{2}$	32	3 $\frac{1}{2}$
12	30	0	30	7 $\frac{1}{2}$	31	3	31	10 $\frac{1}{2}$	30	0	0	33	0	33	8 $\frac{1}{2}$	34	4 $\frac{1}{2}$	35	0 $\frac{1}{2}$
13	32	6	33	1 $\frac{1}{2}$	33	9	34	4 $\frac{1}{2}$	32	10	0	35	9	36	5 $\frac{1}{2}$	37	1 $\frac{1}{2}$	37	9 $\frac{1}{2}$
14	35	0	35	7 $\frac{1}{2}$	36	3	36	10 $\frac{1}{2}$	35	0	0	38	6	39	2 $\frac{1}{2}$	39	10 $\frac{1}{2}$	40	6 $\frac{1}{2}$
15	37	6	38	1 $\frac{1}{2}$	38	9	39	4 $\frac{1}{2}$	37	10	0	41	3	41	11 $\frac{1}{2}$	42	7 $\frac{1}{2}$	43	3 $\frac{1}{2}$
16	40	0	40	7 $\frac{1}{2}$	41	3	41	10 $\frac{1}{2}$	40	0	0	44	0	44	8 $\frac{1}{2}$	45	4 $\frac{1}{2}$	46	0 $\frac{1}{2}$
17	42	6	43	1 $\frac{1}{2}$	43	9	44	4 $\frac{1}{2}$	42	10	0	46	9	47	5 $\frac{1}{2}$	48	1 $\frac{1}{2}$	48	9 $\frac{1}{2}$
18	45	0	45	7 $\frac{1}{2}$	46	3	46	10 $\frac{1}{2}$	45	0	0	49	6	50	2 $\frac{1}{2}$	50	10 $\frac{1}{2}$	51	6 $\frac{1}{2}$
19	47	6	48	1 $\frac{1}{2}$	48	9	49	4 $\frac{1}{2}$	47	10	0	52	3	52	11 $\frac{1}{2}$	53	7 $\frac{1}{2}$	54	3 $\frac{1}{2}$
20	50	0	50	7 $\frac{1}{2}$	51	3	51	10 $\frac{1}{2}$	50	0	0	55	0	55	8 $\frac{1}{2}$	56	4 $\frac{1}{2}$	57	0 $\frac{1}{2}$

No man can faithfully serve two masters.—SALT.

At 60s. per Ton.										At 65s. per Ton.												
Cwt.		Cwt. and $\frac{1}{2}$		Cwt. and $\frac{1}{2}$		Cwt. and $\frac{1}{2}$		Tons.		Cwt.		Cwt. and $\frac{1}{2}$		Cwt. and $\frac{1}{2}$		Cwt. and $\frac{1}{2}$		Tons.				
s.	d.	s.	d.	s.	d.	s.	d.	£	s.	d.	s.	d.	s.	d.	s.	d.	£	s.	d.			
0	0	0	0	9	1	6	2	3	0	0	0	0	0	9 $\frac{1}{2}$	1	7 $\frac{1}{2}$	2	5 $\frac{1}{2}$	0	0	0	
1	3	0	3	9	4	6	5	3	3	0	0	3	3	4	0 $\frac{1}{2}$	4	10 $\frac{1}{2}$	5	8 $\frac{1}{2}$	3	5	0
2	6	0	6	9	7	6	8	3	6	0	0	6	6	7	3 $\frac{1}{2}$	8	1 $\frac{1}{2}$	8	11 $\frac{1}{2}$	6	10	0
3	9	0	9	9	10	6	11	3	9	0	0	9	9	10	6 $\frac{1}{2}$	11	4 $\frac{1}{2}$	12	2 $\frac{1}{2}$	9	15	0
4	12	0	12	9	13	6	14	3	12	0	0	13	0	13	9 $\frac{1}{2}$	14	7 $\frac{1}{2}$	15	5 $\frac{1}{2}$	13	0	0
5	15	0	15	9	16	6	17	3	15	0	0	16	3	17	0 $\frac{1}{2}$	17	10 $\frac{1}{2}$	18	8 $\frac{1}{2}$	16	5	0
6	18	0	18	9	19	6	20	3	18	0	0	19	6	20	3 $\frac{1}{2}$	21	1 $\frac{1}{2}$	21	11 $\frac{1}{2}$	19	10	0
7	21	0	21	9	22	6	23	3	21	0	0	22	9	23	6 $\frac{1}{2}$	24	4 $\frac{1}{2}$	25	2 $\frac{1}{2}$	22	15	0
8	24	0	24	9	25	6	26	3	24	0	0	26	0	26	9 $\frac{1}{2}$	27	7 $\frac{1}{2}$	28	5 $\frac{1}{2}$	26	0	0
9	27	0	27	9	28	6	29	3	27	0	0	29	3	30	0 $\frac{1}{2}$	30	10 $\frac{1}{2}$	31	8 $\frac{1}{2}$	29	5	0
10	30	0	30	9	31	6	32	3	30	0	0	32	6	33	3 $\frac{1}{2}$	34	1 $\frac{1}{2}$	34	11 $\frac{1}{2}$	32	10	0
11	33	0	33	9	34	6	35	3	33	0	0	35	9	36	6 $\frac{1}{2}$	37	4 $\frac{1}{2}$	38	2 $\frac{1}{2}$	35	15	0
12	36	0	36	9	37	6	38	3	36	0	0	39	0	39	9 $\frac{1}{2}$	40	7 $\frac{1}{2}$	41	5 $\frac{1}{2}$	39	0	0
13	39	0	39	9	40	6	41	3	39	0	0	42	3	43	0 $\frac{1}{2}$	43	10 $\frac{1}{2}$	44	8 $\frac{1}{2}$	42	5	0
14	42	0	42	9	43	6	44	3	42	0	0	45	6	46	3 $\frac{1}{2}$	47	1 $\frac{1}{2}$	47	11 $\frac{1}{2}$	45	10	0
15	45	0	45	9	46	6	47	3	45	0	0	48	9	49	6 $\frac{1}{2}$	50	4 $\frac{1}{2}$	51	2 $\frac{1}{2}$	48	15	0
16	48	0	48	9	49	6	50	3	48	0	0	52	0	52	9 $\frac{1}{2}$	53	7 $\frac{1}{2}$	54	5 $\frac{1}{2}$	52	0	0
17	51	0	51	9	52	6	53	3	51	0	0	55	3	56	0 $\frac{1}{2}$	56	10 $\frac{1}{2}$	57	8 $\frac{1}{2}$	55	5	0
18	54	0	54	9	55	6	56	3	54	0	0	58	6	59	3 $\frac{1}{2}$	60	11 $\frac{1}{2}$	60	11 $\frac{1}{2}$	58	10	0
19	57	0	57	9	58	6	59	3	57	0	0	61	9	62	6 $\frac{1}{2}$	63	4 $\frac{1}{2}$	64	2 $\frac{1}{2}$	61	15	0
20	60	0	60	9	61	6	62	3	60	0	0	65	0	65	9 $\frac{1}{2}$	66	7 $\frac{1}{2}$	67	5 $\frac{1}{2}$	65	0	0

He who neglects to attend to his own business, ought not to expect his servants to look after it for him.—SALT.

"A young man idle, an old man needy."

At 70s. per Ton.										At 75s. per Ton.									
Cwt.		Cwt. and $\frac{1}{2}$		Cwt. and $\frac{1}{2}$		Cwt. and $\frac{1}{2}$		Tons.		Cwt.		Cwt. and $\frac{1}{2}$		Cwt. and $\frac{1}{2}$		Cwt. and $\frac{1}{2}$		Tons.	
s.	d.	s.	d.	s.	d.	s.	d.	£	s.	d.	s.	d.	s.	d.	s.	d.	£	s.	d.
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	3	6	4	4	5	3	6	1	3	10	0	3	9	4	8	5	6	3	15
2	7	0	7	10	8	9	9	7	7	0	0	7	6	8	5	9	10	3	7
3	10	6	11	4	12	3	13	1	10	10	0	11	3	12	2	13	1	14	0
4	14	0	14	10	15	9	16	7	14	0	0	15	0	15	11	16	10	17	9
5	17	6	18	4	19	3	20	1	17	10	0	18	9	19	8	20	7	21	6
6	21	0	21	10	22	9	23	7	21	0	0	22	6	23	5	24	4	25	3
7	24	6	25	4	26	3	27	1	24	10	0	26	3	27	2	28	1	29	0
8	28	0	28	10	29	9	30	7	28	0	0	30	0	30	11	31	10	32	9
9	31	6	32	4	33	3	34	1	31	10	0	33	9	34	8	35	7	36	6
10	35	0	35	10	36	9	37	7	35	0	0	37	6	38	5	39	4	40	3
11	38	6	39	4	40	3	41	1	38	10	0	41	3	42	2	43	1	44	0
12	42	0	42	10	43	9	44	7	42	0	0	45	0	45	11	46	10	47	9
13	45	6	46	4	47	3	48	1	45	10	0	48	9	49	8	50	7	51	6
14	49	0	49	10	50	9	51	7	49	0	0	52	6	53	5	54	4	55	3
15	52	6	53	4	54	3	55	1	52	10	0	56	3	57	2	58	1	59	0
16	56	0	56	10	57	9	58	7	56	0	0	60	0	60	11	61	10	62	9
17	59	6	60	4	61	3	62	1	59	10	0	63	9	64	8	65	7	66	6
18	63	0	63	10	64	9	65	7	63	0	0	67	6	68	5	69	4	70	3
19	66	6	67	4	68	3	69	1	66	10	0	71	3	72	2	73	1	74	0
20	70	0	70	10	71	9	72	7	70	0	0	75	0	75	11	76	10	77	9

It is not so much time as method that enables some men to transact so much business.—SALT.

At 80s. per Ton.										At 85s. per Ton.									
Cwt.		Cwt. and $\frac{1}{2}$		Cwt. and $\frac{1}{2}$		Cwt. and $\frac{1}{2}$		Tons.		Cwt.		Cwt. and $\frac{1}{2}$		Cwt. and $\frac{1}{2}$		Cwt. and $\frac{1}{2}$		Tons.	
s.	d.	s.	d.	s.	d.	s.	d.	£	s.	d.	s.	d.	s.	d.	s.	d.	£	s.	d.
0	0	0	1	0	2	0	3	0	0	0	0	0	0	1	0	2	0	0	0
1	4	0	5	0	6	0	7	0	4	0	0	4	3	5	3	6	4	5	0
2	8	0	9	0	10	0	11	0	8	0	0	8	6	9	6	10	7	8	10
3	12	0	13	0	14	0	15	0	12	0	0	12	9	13	9	14	10	15	0
4	16	0	17	0	18	0	19	0	16	0	0	17	0	18	0	19	1	20	2
5	20	0	21	0	22	0	23	0	20	0	0	21	3	22	3	23	4	24	5
6	24	0	25	0	26	0	27	0	24	0	0	25	6	26	6	27	7	28	8
7	28	0	29	0	30	0	31	0	28	0	0	29	9	30	9	31	10	32	11
8	32	0	33	0	34	0	35	0	32	0	0	34	0	35	0	36	1	37	2
9	36	0	37	0	38	0	39	0	36	0	0	38	3	39	3	40	4	41	5
10	40	0	41	0	42	0	43	0	40	0	0	42	6	43	6	44	7	45	8
11	44	0	45	0	46	0	47	0	44	0	0	46	9	47	9	48	10	49	11
12	48	0	49	0	50	0	51	0	48	0	0	51	0	52	0	53	1	54	2
13	52	0	53	0	54	0	55	0	52	0	0	55	3	56	3	57	4	58	5
14	56	0	57	0	58	0	59	0	56	0	0	59	6	60	6	61	7	62	8
15	60	0	61	0	62	0	63	0	60	0	0	63	9	64	9	65	10	66	11
16	64	0	65	0	66	0	67	0	64	0	0	68	0	69	0	70	1	71	2
17	68	0	69	0	70	0	71	0	68	0	0	72	3	73	3	74	4	75	5
18	72	0	73	0	74	0	75	0	72	0	0	76	6	77	6	78	7	79	8
19	76	0	77	0	78	0	79	0	76	0	0	80	9	81	9	82	10	83	11
20	80	0	81	0	82	0	83	0	80	0	0	85	0	86	0	87	1	88	2

Correctness is more desirable than inaccurate quickness.—SALT.

Strive to become master of your business.—SALT.

At 90s. per Ton.										At 95s. per Ton.									
Cwt.		Cwt. and $\frac{1}{2}$		Cwt. and $\frac{1}{2}$		Cwt. and $\frac{3}{4}$		Tons.		Cwt.		Cwt. and $\frac{1}{2}$		Cwt. and $\frac{1}{2}$		Cwt. and $\frac{3}{4}$		Tons.	
s.	d.	s.	d.	s.	d.	s.	d.	£	s.	d.	s.	d.	s.	d.	s.	d.	£	s.	d.
0	0	1	1	2	3	3	4	0	0	0	1	2	2	4	3	6	0	0	0
1	4	5	7	6	9	7	10	4	10	0	4	9	5	11	7	13	4	15	0
2	9	10	11	11	3	12	4	9	0	0	9	6	10	8	11	10	9	10	0
3	13	6	14	7	15	9	16	10	13	10	14	3	15	5	16	7	14	5	0
4	18	0	19	11	20	3	21	4	18	0	19	0	20	2	21	4	19	0	0
5	22	6	23	7	24	9	25	10	22	10	23	9	24	11	26	11	23	15	0
6	27	0	28	11	29	3	30	4	27	0	28	6	29	8	30	10	28	10	0
7	31	6	32	7	33	9	34	10	31	10	33	3	34	5	35	7	33	5	0
8	36	0	37	11	38	3	39	4	36	0	38	0	39	2	40	4	38	0	0
9	40	6	41	7	42	9	43	10	40	10	42	9	43	11	45	11	42	15	0
10	45	0	46	11	47	3	48	4	45	0	47	6	48	8	49	10	47	10	0
11	49	6	50	7	51	9	52	10	49	10	52	3	53	5	54	7	52	5	0
12	54	0	55	11	56	3	57	4	54	0	57	0	58	2	59	4	57	0	0
13	58	6	59	7	60	9	61	10	58	10	61	9	62	11	64	11	61	15	0
14	63	0	64	11	65	3	66	4	63	0	66	6	67	8	68	10	66	10	0
15	67	6	68	7	69	9	70	10	67	10	71	3	72	5	73	7	71	5	0
16	72	0	73	11	74	3	75	4	72	0	76	0	77	2	78	4	76	0	0
17	76	6	77	7	78	9	79	10	76	10	80	9	81	11	83	11	80	15	0
18	81	0	82	11	83	3	84	4	81	0	85	6	86	8	87	10	85	10	0
19	85	6	86	7	87	9	88	10	85	10	90	3	91	5	92	7	90	5	0
20	90	0	91	11	92	3	93	4	90	0	95	0	96	2	97	4	95	0	0

He who allows his papers to accumulate unnecessarily on his desk, is not a man of business.—SALT.

At 100s. per Ton.										At 110s. per Ton.									
Cwt.		Cwt. and $\frac{1}{2}$		Cwt. and $\frac{1}{2}$		Cwt. and $\frac{3}{4}$		Tons.		Cwt.		Cwt. and $\frac{1}{2}$		Cwt. and $\frac{1}{2}$		Cwt. and $\frac{3}{4}$		Tons.	
s.	d.	s.	d.	s.	d.	s.	d.	£	s.	d.	s.	d.	s.	d.	s.	d.	£	s.	d.
0	0	1	3	2	6	3	9	0	0	0	1	4	2	9	4	11	0	0	0
1	5	6	3	7	6	8	9	5	0	0	5	6	6	10	8	3	5	10	0
2	10	11	3	12	6	13	9	10	0	0	11	0	12	4	13	9	11	0	0
3	15	16	3	17	6	18	9	15	0	0	16	6	17	10	19	3	16	10	0
4	20	21	3	22	6	23	9	20	0	0	22	0	23	4	24	9	22	0	0
5	25	26	3	27	6	28	9	25	0	0	27	6	28	10	30	3	27	10	0
6	30	31	3	32	6	33	9	30	0	0	33	0	34	4	35	9	33	0	0
7	35	36	3	37	6	38	9	35	0	0	38	6	39	10	41	3	38	10	0
8	40	41	3	42	6	43	9	40	0	0	44	0	45	4	46	9	44	0	0
9	45	46	3	47	6	48	9	45	0	0	49	6	50	10	52	3	49	10	0
10	50	51	3	52	6	53	9	50	0	0	55	0	56	4	57	9	55	0	0
11	55	56	3	57	6	58	9	55	0	0	60	6	61	10	63	3	60	10	0
12	60	61	3	62	6	63	9	60	0	0	66	0	67	4	68	9	66	0	0
13	65	66	3	67	6	68	9	65	0	0	71	6	72	10	74	3	71	10	0
14	70	71	3	72	6	73	9	70	0	0	77	0	78	4	79	9	77	0	0
15	75	76	3	77	6	78	9	75	0	0	82	6	83	10	85	3	82	10	0
16	80	81	3	82	6	83	9	80	0	0	88	0	89	4	90	9	88	0	0
17	85	86	3	87	6	88	9	85	0	0	93	6	94	10	96	3	93	10	0
18	90	91	3	92	6	93	9	90	0	0	99	0	100	4	101	9	99	0	0
19	95	96	3	97	6	98	9	95	0	0	104	6	105	10	107	3	104	10	0
20	100	100	3	102	6	103	9	100	0	0	110	0	111	4	112	9	110	0	0

"A good maxim is never out of season"

# CALCULATION OF TOLLS,

FROM  $\frac{1}{4}$ d. TO 3d. PER TON PER MILE.

From 1 to 200 Miles.

Miles.	$\frac{1}{4}$ d.	$\frac{1}{2}$ d.	$\frac{3}{4}$ d.	1d.	$1\frac{1}{4}$ d.	$1\frac{1}{2}$ d.	$1\frac{3}{4}$ d.	2d.	$2\frac{1}{4}$ d.	$2\frac{1}{2}$ d.	$2\frac{3}{4}$ d.	3d.	Miles.
1	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	1
2	0 0 $\frac{1}{4}$	0 0 $\frac{1}{2}$	0 0 $\frac{3}{4}$	0 1	0 1 $\frac{1}{4}$	0 1 $\frac{1}{2}$	0 1 $\frac{3}{4}$	0 2	0 2 $\frac{1}{4}$	0 2 $\frac{1}{2}$	0 2 $\frac{3}{4}$	0 3	2
3	0 0 $\frac{1}{2}$	0 1	0 1 $\frac{1}{2}$	0 2	0 2 $\frac{1}{4}$	0 3	0 3 $\frac{1}{2}$	0 4	0 4 $\frac{1}{4}$	0 5	0 5 $\frac{1}{2}$	0 6	3
4	0 0 $\frac{3}{4}$	0 1 $\frac{1}{2}$	0 2	0 3	0 3 $\frac{1}{4}$	0 4	0 4 $\frac{1}{2}$	0 5	0 5 $\frac{1}{4}$	0 6	0 6 $\frac{1}{2}$	0 7	4
5	0 1	0 2	0 3	0 4	0 4 $\frac{1}{4}$	0 5	0 5 $\frac{1}{2}$	0 6	0 6 $\frac{1}{4}$	0 7	0 7 $\frac{1}{2}$	0 8	5
6	0 1 $\frac{1}{4}$	0 2 $\frac{1}{2}$	0 3 $\frac{3}{4}$	0 5	0 6 $\frac{1}{4}$	0 7	0 7 $\frac{1}{2}$	0 8	0 8 $\frac{1}{4}$	0 10	0 11 $\frac{1}{4}$	0 12	6
7	0 1 $\frac{1}{2}$	0 3	0 4 $\frac{1}{2}$	0 6	0 7 $\frac{1}{4}$	0 8	0 8 $\frac{1}{2}$	0 9	0 10 $\frac{1}{4}$	1 0	1 1 $\frac{1}{4}$	1 2	7
8	0 2	0 4	0 5 $\frac{1}{2}$	0 7	0 8 $\frac{1}{4}$	0 10	1 0	1 1	1 1 $\frac{1}{4}$	1 2	1 2 $\frac{1}{4}$	1 3	8
9	0 2 $\frac{1}{4}$	0 4 $\frac{1}{2}$	0 6 $\frac{3}{4}$	0 9	0 11 $\frac{1}{4}$	1 1 $\frac{1}{2}$	1 3 $\frac{3}{4}$	1 6	1 8 $\frac{3}{4}$	1 10 $\frac{3}{4}$	2 0 $\frac{3}{4}$	2 2 $\frac{3}{4}$	9
10	0 2 $\frac{1}{2}$	0 5	0 7 $\frac{1}{2}$	0 10	1 0 $\frac{1}{2}$	1 3	1 5 $\frac{1}{2}$	1 8	1 10 $\frac{1}{2}$	2 1	2 3 $\frac{1}{2}$	2 6	10
11	0 2 $\frac{3}{4}$	0 5 $\frac{1}{2}$	0 8 $\frac{1}{2}$	0 11	1 1 $\frac{1}{4}$	1 4	1 7 $\frac{1}{4}$	1 10	2 0 $\frac{1}{4}$	2 2 $\frac{1}{2}$	2 5 $\frac{1}{2}$	2 9	11
12	0 3	0 6	0 9	1 0	1 3	1 6	1 9	2 0	2 3	2 6	2 9	3 0	12
13	0 3 $\frac{1}{4}$	0 6 $\frac{1}{2}$	0 9 $\frac{3}{4}$	1 1	1 4 $\frac{1}{4}$	1 7 $\frac{1}{2}$	1 10 $\frac{3}{4}$	2 2	2 5 $\frac{1}{4}$	2 8 $\frac{3}{4}$	2 11 $\frac{3}{4}$	3 3	13
14	0 3 $\frac{1}{2}$	0 7	0 10 $\frac{1}{2}$	1 2	1 5 $\frac{1}{2}$	1 9	2 0 $\frac{1}{2}$	2 4	2 7 $\frac{1}{2}$	2 11	3 2 $\frac{1}{2}$	3 6	14
15	0 3 $\frac{3}{4}$	0 7 $\frac{1}{2}$	0 11 $\frac{1}{4}$	1 3	1 6 $\frac{3}{4}$	1 10 $\frac{1}{2}$	2 2 $\frac{1}{4}$	2 6	2 9 $\frac{3}{4}$	3 1 $\frac{1}{4}$	3 5 $\frac{1}{4}$	3 9	15
16	0 4	0 8	1 0	1 4	1 8	2 0	2 4	2 8	3 0	3 4	3 8	4 0	16
17	0 4 $\frac{1}{4}$	0 8 $\frac{1}{2}$	1 0 $\frac{3}{4}$	1 5	1 9 $\frac{1}{4}$	2 1 $\frac{1}{2}$	2 5 $\frac{3}{4}$	2 10	3 2 $\frac{3}{4}$	3 6 $\frac{3}{4}$	3 10 $\frac{3}{4}$	4 3	17
18	0 4 $\frac{1}{2}$	0 9	1 1 $\frac{1}{2}$	1 6	1 10 $\frac{1}{2}$	2 3	2 7 $\frac{3}{4}$	3 0	3 4 $\frac{3}{4}$	3 9	4 1 $\frac{3}{4}$	4 6	18
19	0 4 $\frac{3}{4}$	0 9 $\frac{1}{2}$	1 2 $\frac{1}{4}$	1 7	1 11 $\frac{1}{4}$	2 4 $\frac{1}{2}$	2 9 $\frac{1}{4}$	3 2	3 6 $\frac{1}{4}$	3 11 $\frac{1}{4}$	4 5 $\frac{1}{4}$	4 9	19
20	0 5	0 10	1 3	1 8	2 1	2 6	2 11	3 4	3 9	4 2	4 7	5 0	20
25	0 6 $\frac{1}{4}$	1 0 $\frac{1}{2}$	1 6 $\frac{3}{4}$	2 1	2 7 $\frac{1}{4}$	3 1 $\frac{1}{2}$	3 7 $\frac{3}{4}$	4 2	4 8 $\frac{3}{4}$	5 2 $\frac{3}{4}$	5 8 $\frac{3}{4}$	6 3	25
30	0 7 $\frac{1}{4}$	1 3	1 10 $\frac{1}{2}$	2 6	3 1 $\frac{1}{2}$	3 9	4 4 $\frac{1}{2}$	5 0	5 7 $\frac{1}{2}$	6 3	6 10 $\frac{1}{2}$	7 6	30
35	0 8 $\frac{1}{4}$	1 5 $\frac{1}{2}$	2 2 $\frac{1}{4}$	2 11	3 7 $\frac{1}{4}$	4 4 $\frac{1}{2}$	5 1 $\frac{1}{2}$	5 10	6 6 $\frac{1}{2}$	7 3 $\frac{1}{2}$	8 0 $\frac{1}{2}$	8 9	35
40	0 10	1 8	2 6	3 4	4 2	5 0	5 10	6 8	7 6	8 4	9 2	10 0	40
45	0 11 $\frac{1}{4}$	1 10 $\frac{1}{2}$	2 9 $\frac{3}{4}$	3 9	4 8 $\frac{1}{4}$	5 7 $\frac{1}{2}$	6 6 $\frac{3}{4}$	7 6	8 5 $\frac{1}{4}$	9 4 $\frac{1}{4}$	10 3 $\frac{1}{4}$	11 3	45
50	1 0 $\frac{3}{4}$	2 1	3 1 $\frac{1}{2}$	4 2	5 2 $\frac{1}{2}$	6 3	7 3 $\frac{1}{2}$	8 4	9 4 $\frac{1}{2}$	10 5	11 5 $\frac{1}{2}$	12 6	50
55	1 1 $\frac{1}{4}$	2 3 $\frac{1}{2}$	3 5 $\frac{1}{4}$	4 7	5 8 $\frac{1}{4}$	6 10 $\frac{1}{2}$	8 0 $\frac{1}{4}$	9 2	10 3 $\frac{1}{4}$	11 5 $\frac{1}{4}$	12 7 $\frac{1}{4}$	13 9	55
60	1 3	2 6	3 9	5 0	6 3	7 6	8 9	10 0	11 3	12 6	13 9	15 0	60
65	1 4 $\frac{1}{4}$	2 8 $\frac{1}{2}$	4 0 $\frac{3}{4}$	5 5	6 9 $\frac{1}{4}$	8 1 $\frac{1}{2}$	9 5 $\frac{3}{4}$	10 10	12 2 $\frac{3}{4}$	13 6 $\frac{3}{4}$	14 10 $\frac{3}{4}$	16 3	65
70	1 5 $\frac{1}{2}$	2 11	4 4 $\frac{1}{2}$	5 10	7 3 $\frac{1}{2}$	8 9	10 2 $\frac{1}{2}$	11 8	13 1 $\frac{1}{2}$	14 7	16 0 $\frac{1}{2}$	17 6	70
75	1 6 $\frac{3}{4}$	3 1 $\frac{1}{2}$	4 8 $\frac{1}{4}$	6 3	7 9 $\frac{1}{4}$	9 4 $\frac{1}{2}$	10 11 $\frac{1}{4}$	12 6	14 0 $\frac{1}{4}$	15 7 $\frac{1}{4}$	17 2 $\frac{1}{4}$	18 9	75
80	1 8	3 4	5 0	6 8	8 4	10 0	11 8	13 4	15 0	16 8	18 4	20 0	80
85	1 9 $\frac{1}{4}$	3 6 $\frac{1}{2}$	5 3 $\frac{3}{4}$	7 1	8 10 $\frac{1}{4}$	10 7 $\frac{1}{2}$	12 4 $\frac{1}{4}$	14 2	15 11 $\frac{1}{4}$	17 8 $\frac{1}{4}$	19 5 $\frac{1}{4}$	21 3	85
90	1 10 $\frac{1}{4}$	3 9	5 7 $\frac{1}{2}$	7 6	9 4 $\frac{1}{2}$	11 3	13 1 $\frac{1}{2}$	15 0	16 10 $\frac{1}{2}$	18 9	20 7 $\frac{1}{2}$	22 6	90
95	1 11 $\frac{1}{4}$	3 11 $\frac{1}{2}$	5 11 $\frac{1}{4}$	7 11	9 10 $\frac{1}{4}$	11 10 $\frac{1}{2}$	13 10 $\frac{1}{4}$	15 10	17 9 $\frac{1}{4}$	19 9 $\frac{1}{2}$	21 9 $\frac{1}{4}$	23 9	95
100	2 1	4 2	6 3	8 4	10 5	12 6	14 7	16 8	18 9	20 10	22 11	25 0	100
110	2 3 $\frac{1}{4}$	4 7	6 10 $\frac{1}{2}$	9 2	11 5 $\frac{1}{2}$	13 9	16 0 $\frac{1}{2}$	18 4	20 7 $\frac{1}{2}$	22 11	25 2 $\frac{1}{2}$	27 6	110
120	2 6	5 0	7 6	10 0	12 6	15 0	17 6	20 0	22 6	25 0	27 6	30 0	120
130	2 8 $\frac{1}{2}$	5 5	8 1 $\frac{1}{2}$	10 10	13 6 $\frac{1}{2}$	16 3	18 11 $\frac{1}{2}$	21 8	24 4 $\frac{1}{2}$	27 1	29 9 $\frac{1}{2}$	32 6	130
140	2 11	5 10	8 9	11 8	14 7	17 6	20 5	23 4	26 3	29 2	32 1	35 0	140
150	3 1 $\frac{1}{2}$	6 3	9 4 $\frac{1}{2}$	12 6	15 7 $\frac{1}{2}$	18 9	21 10 $\frac{1}{2}$	25 0	28 1 $\frac{1}{2}$	31 3	34 4 $\frac{1}{2}$	37 6	150
160	3 4	6 8	10 0	13 4	16 8	20 0	23 4	26 8	30 0	33 4	36 8	40 0	160
170	3 6 $\frac{1}{2}$	7 1	10 7 $\frac{1}{2}$	14 2	17 8 $\frac{1}{2}$	21 3	24 9 $\frac{1}{2}$	28 4	31 10 $\frac{1}{2}$	35 5	38 11 $\frac{1}{2}$	42 6	170
180	3 9	7 6	11 3	15 0	18 9	22 6	26 3	30 0	33 9	37 6	41 3	45 0	180
190	3 11 $\frac{1}{2}$	7 11	11 10 $\frac{1}{2}$	15 10	19 9 $\frac{1}{2}$	23 9	27 8 $\frac{1}{2}$	31 3	35 7 $\frac{1}{2}$	39 7	43 6 $\frac{1}{2}$	47 6	190
200	4 2	8 4	12 6	16 8	20 10	25 0	29 2	33 4	37 6	41 8	45 10	50 0	200

# TABLES

## FOR CALCULATING THE WEIGHT OF TIMBER.

Oak .....	} 30 Feet per Ton.	Pitch Pine .....	} 40 Feet per Ton.
Ash .....		Maple .....	
Elm .....		Hardwood .....	
Mahogany .....		Beech .....	
Teakwood .....		Birch .....	
Round Timber....		Cedar .....	
Pine .....	} 50 Feet per Ton.		
Dantzic .....			
Riga .....			
Fir .....			
Memel .....			

A Standard of Deals is 120 in number of 12 Feet long,  $1\frac{1}{2}$  inches thick, and 11 inches wide.

	Tons.	Cwts.	Qrs.	Lbs.
A Standard Cwt. of Red Deals is	2	15	0	0
White Deals is	2	10	0	0
Cwt. is	165 Cubic Feet.			

## SOLID OR CUBIC MEASURE.

1728 Inches.....	make 1 Foot.
27 Feet.....	1 Yard.
40 Feet of Rough, or	} 1 Ton or Load.
50 Feet of Hewn Timber	
108 Feet.....	1 Stack of Wood.
128 Feet.....	1 Cord of Wood.
277 $\frac{1}{2}$ Inches.....	1 Imperial Standard Gallon.
2218 $\frac{1}{2}$ Inches.....	1 Imperial Standard Bushel.

A cube is a solid body, and contains length, breadth, and thickness, having six equal sides. A cube number is produced by multiplying a number twice into itself, thus 64 is a cube number, and is produced by multiplying the number 4 twice into itself, as  $4 \times 4 \times 4 = 64$ .

## LATHWOOD.

	Tons.	Cwt.	Qrs.	Lbs.
1 Fathom of 4-Foot Lathwood is.....	1	10	0	0
1 " 6 " " .....	2	5	0	0
1 " 8 " " .....	3	0	0	0

## AVOIRDUPOIS WEIGHT.

27 $\frac{1}{2}$ Grains Troy.....	make 1 Drachm.....	dr.
16 Drachms .....	1 Ounce .....	oz.
14 Pounds.....	1 Stone.....	st.
28 Pounds .....	1 Quarter.....	qr.
4 Quarters .....	1 Hundred Weight.....	cwt.
20 Hundred Weight.....	1 Ton .....	T.

Flour is sold nominally by measure, but actually by weight, at 7lb. avoirdupois to a gallon, 14lb. to a peck, &c.

By a late act of parliament the legal stone is, in all cases, to consist of 14lb. avoirdupois; 8 such stones 1 cwt.; 20 cwt. one ton, &c.

## TABLES FOR CALCULATING THE WEIGHT OF BALK.

At 120 lbs. to the Cwt.

No. of Feet.	30 Feet per Ton.				40 Feet per Ton.				50 Feet per Ton.				No. of Feet.	30 Feet per Ton.				40 Feet per Ton.				50 Ft. per Ton.			
	Tons	Cwts	Qrs.	lbs.	Tons	Cwts	Qrs.	lbs.	Tons	Cwts	Qrs.	lbs.		Tons	Cwts	Qrs.	lbs.	Tons	Cwts	Qrs.	lbs.	Tons	Cwts	Qrs.	lbs.
1	..	..	2	20	..	..	2	..	..	..	1	18	33	1	2	..	..	16	2	..	..	13	..	24	
2	..	1	1	10	..	1	..	..	..	..	3	6	34	1	2	2	20	..	17	..	..	13	2	12	
3	..	2	..	..	..	1	2	..	..	1	..	24	35	1	3	1	10	..	17	2	..	14	..	..	
4	..	2	2	20	..	2	..	..	..	1	2	12	36	1	4	..	..	..	18	..	..	14	1	18	
5	..	3	1	10	..	2	2	..	..	2	..	..	37	1	4	2	20	..	18	2	..	14	3	6	
6	..	4	..	..	..	3	..	..	..	2	1	18	38	1	5	1	10	..	19	..	..	15	..	24	
7	..	4	2	20	..	3	2	..	..	2	3	6	39	1	6	..	..	..	19	2	..	15	2	12	
8	..	5	1	10	..	4	..	..	..	3	..	24	40	1	6	2	20	1	0	..	..	16	..	..	
9	..	6	..	..	..	4	2	..	..	3	2	12	41	1	7	1	10	1	0	2	..	16	1	18	
10	..	6	2	20	..	5	..	..	..	4	..	..	42	1	8	..	..	1	1	..	..	16	3	6	
11	..	7	1	10	..	5	2	..	..	4	1	18	43	1	8	2	20	1	1	2	..	17	..	24	
12	..	8	..	..	..	6	..	..	..	4	3	6	44	1	9	1	10	1	2	..	..	17	2	12	
13	..	8	2	20	..	6	2	..	..	5	..	24	45	1	10	..	..	1	2	2	..	18	..	..	
14	..	9	1	10	..	7	..	..	..	5	2	12	46	1	10	2	20	1	3	..	..	18	1	18	
15	..	10	..	..	..	7	2	..	..	6	..	..	47	1	11	1	10	1	3	2	..	18	3	6	
16	..	10	2	20	..	8	..	..	..	6	1	18	48	1	12	..	..	1	4	..	..	19	..	24	
17	..	11	1	10	..	8	2	..	..	6	3	6	49	1	12	2	20	1	4	2	..	19	2	12	
18	..	12	..	..	..	9	..	..	..	7	..	24	50	1	13	1	10	1	5	..	..	1	..	..	
19	..	12	2	20	..	9	2	..	..	7	2	12	50	2	..	..	..	1	10	..	..	1	4	..	
20	..	13	1	10	..	10	..	..	..	8	..	..	70	2	6	2	20	1	15	..	..	1	8	..	
21	..	14	..	..	..	10	2	..	..	8	1	18	80	2	13	1	10	2	0	..	..	1	12	..	
22	..	14	2	20	..	11	..	..	..	8	3	6	80	3	..	..	..	2	5	..	..	1	16	..	
23	..	15	1	10	..	11	2	..	..	9	..	24	100	3	6	2	20	2	10	..	..	2	..	..	
24	..	16	..	..	..	12	..	..	..	9	2	12	200	6	13	1	10	5	0	..	..	4	..	..	
25	..	16	2	20	..	12	2	..	..	10	..	..	300	10	..	..	..	7	10	..	..	6	..	..	
26	..	17	1	10	..	13	..	..	..	10	1	18	400	13	6	2	20	10	0	..	..	8	..	..	
27	..	18	..	..	..	13	2	..	..	10	3	6	500	16	13	1	10	12	10	..	..	10	..	..	
28	..	18	2	20	..	14	..	..	..	11	..	24	600	20	..	..	..	15	0	..	..	12	..	..	
29	..	19	1	10	..	14	2	..	..	11	2	12	700	23	6	2	20	17	10	..	..	14	..	..	
30	1	..	..	..	..	15	..	..	..	12	..	..	800	26	13	1	10	20	0	..	..	16	..	..	
31	1	..	2	20	..	15	2	..	..	12	1	18	900	30	..	..	..	22	10	..	..	18	..	..	
32	1	1	1	10	..	16	..	..	..	12	3	6	1000	33	6	2	20	25	0	..	..	20	..	..	

## TABLES FOR CALCULATING THE WEIGHT OF DEALS.

At 120 lbs. to the Cwt.

No. of lbs.	Tons. Cwts. Qrs. lbs. 2 10 0 0 per Standard.				Tons. Cwts. Qrs. lbs. 2 15 0 0 per Standard.				Number of lbs.	Tons. Cwts. Qrs. lbs. 2 10 0 0 per Standard.				Tons. Cwts. Qrs. lbs. 2 15 0 0 per Standard.				Fractions of lbs. 2 10 0 0 per Standard.			
	Tons	Cwts	Qrs.	lbs.	Tons	Cwts	Qrs.	lbs.		Tons	Cwts	Qrs.	lbs.	Tons	Cwts	Qrs.	lbs.	Cwt.	Qrs.	lbs.	
1	..	..	1	20	..	..	1	23	17	..	7	..	10	..	7	3	4	7½	..	3	
2	..	..	3	10	..	..	3	18	18	..	7	2	..	..	8	1	..	3	..	5	
3	..	1	1	..	..	1	1	14	19	..	7	3	20	..	8	2	23	4	..	8	
4	..	1	2	20	..	1	3	9	20	..	8	1	10	..	9	..	18	5	..	11	
5	..	2	..	10	..	2	1	4	21	..	8	3	..	..	9	2	14	6	..	13	
6	..	2	2	..	..	2	3	..	22	..	9	..	20	..	10	..	9	7	..	16	
7	..	2	3	20	..	3	..	23	23	..	9	2	10	..	10	2	4	8	..	19	
8	..	3	1	10	..	3	2	18	24	..	10	..	..	..	11	..	..	9	..	22	
9	..	3	3	..	..	4	..	14	25	..	10	1	20	..	11	1	23	10	..	25	
10	..	4	..	20	..	4	2	9	26	..	10	3	10	..	11	3	18	11	1	27	
11	..	4	2	10	..	5	..	4	27	..	11	1	..	..	12	1	14	12	1	3	
12	..	5	..	..	..	5	2	..	28	..	11	2	20	..	12	3	9	13	1	6	
13	..	5	1	20	..	5	3	23	29	..	12	..	10	..	13	1	4	14	1	8	
14	..	5	3	10	..	6	1	18	Standard	..	12	2	0	0	..	13	3	0	15	1	11
15	..	6	1	..	..	6	3	14		..	1	5	0	0	0	1	7	2	16	1	14
16	..	6	2	20	..	7	1	9		..	1	17	2	0	0	2	1	1	17	1	17
																				18	20

# TABLES

To calculate Grain, &c., 112 lbs. to the Cwt.

At 45, 60, & 70 lbs. to the Bushel.

Number of Bushels	45lbs. per Bushel.			60lbs. per Bushel.			70lbs. per Bushel.			Number of Bushels	45lbs. per Bushel.			60lbs. per Bushel.			70lbs. per Bushel.		
	Tons	Cwts	Qrs lbs.	Tons	Cwts	Qrs lbs.	Tons	Cwts	Qrs lbs.		Tons	Cwts	Qrs lbs.	Tons	Cwts	Qrs lbs.	Tons	Cwts	Qrs lbs.
1	...	...	1 17	...	...	2 4	...	...	2 14	52	1	...	3 16	1	7	3 12	1	12	2 11
2	...	...	3 6	...	...	1 8	...	...	1 1	53	1	1	1 5	1	8	1 16	1	13	...
3	...	1	23	...	...	1 2 12	...	...	1 3 14	54	1	1	2 22	1	9	3 20	1	13	3 11
4	...	1	2 12	...	...	2 16	...	...	2 2	55	1	2	...	11	1	9	1 24	1	14
5	...	2	...	...	...	2 220	...	...	3 14	56	1	2	2 11	1	10	...	1	15	...
6	...	2	1 18	...	...	3 24	...	...	3 3	57	1	2	3 17	1	10	2 4	1	15	2 14
7	...	2	3 7	...	...	3 3	...	...	4 1 14	58	1	3	1 6	1	11	8	1	16	1
8	...	3	...	...	...	4 1 4	...	...	5 14	59	1	3	2 23	1	11	2 12	1	16	3 14
9	...	3	2 13	...	...	4 3 8	...	...	5 2 14	60	1	4	...	12	1	12	1	17	2 11
10	...	4	...	...	...	5 1 12	...	...	6 1	61	1	4	2 1	1	12	2 20	1	18	...
11	...	4	1 19	...	...	5 3 16	...	...	6 3 14	62	1	4	3 18	1	13	...	1	18	3 11
12	...	4	3 8	...	...	6 1 20	...	...	7 2	63	1	5	1 7	1	13	3 11	1	19	1 14
13	...	5	...	...	...	6 3 24	...	...	8 14	64	1	5	2 24	1	14	1 4	2	...	...
14	...	5	2 14	...	...	7 2	...	...	8 3	65	1	6	...	13	1	14	3 8	2	2 14
15	...	6	...	...	...	8 4	...	...	9 1 14	66	1	6	2 2	1	15	1 12	2	1	1 11
16	...	6	1 20	...	...	8 2 8	...	...	10	67	1	6	3 19	1	15	3 16	2	1	3 14
17	...	6	3 9	...	...	9 12	...	...	10 2 14	68	1	7	1 8	1	16	1 20	2	2	...
18	...	7	...	...	...	9 2 16	...	...	11 1	69	1	7	2 25	1	16	3 24	2	3	...
19	...	7	2 15	...	...	10 20	...	...	11 3 14	70	1	8	...	14	1	17	2 11	2	3 11
20	...	8	...	...	...	10 2 24	...	...	12 2	71	1	8	2 3	1	18	...	4	2	4 1 14
21	...	8	1 21	...	...	11 1	...	...	13 14	72	1	8	3 20	1	18	2 8	2	5	...
22	...	8	3 10	...	...	11 3 4	...	...	13 3	73	1	9	1 9	1	19	...	12	2	5 2 14
23	...	9	...	...	...	12 1 8	...	...	14 1 14	74	1	9	2 26	1	19	2 16	2	6	1 11
24	...	9	2 17	...	...	12 3 12	...	...	15 1	75	1	10	...	15	2	...	20	2	6 3 14
25	...	10	...	...	...	13 1 16	...	...	15 2 14	76	1	10	2 4	2	...	2 24	2	7	2 11
26	...	10	1 22	...	...	13 3 20	...	...	16 1	77	1	10	3 21	2	1	1 1	2	8	...
27	...	10	3 11	...	...	14 1 24	...	...	16 3 14	78	1	11	1 10	2	1	3 4	2	8	3 11
28	...	11	...	...	...	15 1	...	...	17 2	79	1	11	2 27	2	2	1 8	2	9	1 14
29	...	11	2 17	...	...	15 2 4	...	...	18 14	80	1	12	...	16	2	3 12	2	10	...
30	...	12	...	...	...	16 8	...	...	18 3	81	1	12	2 5	2	3	1 16	2	10	2 14
31	...	12	1 23	...	...	16 2 12	...	...	19 1 14	82	1	12	3 22	2	3	3 20	2	11	1 11
32	...	12	3 12	...	...	17 16	...	...	...	83	1	13	1 11	2	4	1 24	2	11	3 14
33	...	13	...	...	...	17 2 20	...	...	2 14	84	1	13	3 1	2	5	...	...	12	2 11
34	...	13	2 18	...	...	18 24	...	...	1 1	85	1	14	...	17	2	5	2 4	2	13 14
35	...	14	...	...	...	18 3 1	...	...	1 3 14	86	1	14	2 6	2	6	...	8	2	13 3 11
36	...	14	1 24	...	...	19 1 4	...	...	2 2	87	1	14	3 23	2	6	2 12	2	14	1 14
37	...	14	3 13	...	...	19 3 8	...	...	3 14	88	1	15	1 12	2	7	...	16	2	15 11
38	...	15	1 2	...	...	1 12	...	...	3 3	89	1	15	3 1	2	7	2 20	2	15	2 14
39	...	15	2 19	...	...	3 16	...	...	4 1 14	90	1	16	...	18	2	8	...	24	2 16 1 11
40	...	16	...	...	...	1 20	...	...	5 1	91	1	16	2 7	2	8	3 1	2	16	3 14
41	...	16	1 25	...	...	1 3 24	...	...	5 2 14	92	1	16	3 24	2	9	1 4	2	17	2 11
42	...	16	3 14	...	...	2 2	...	...	6 1	93	1	17	1 13	2	9	3 8	2	18	...
43	...	17	1 3	...	...	3 4	...	...	6 3 14	94	1	17	3 2	2	10	1 12	2	18	3 11
44	...	17	2 20	...	...	3 2 8	...	...	7 2	95	1	18	...	19	2	10	3 16	2	19 1 14
45	...	18	...	...	...	4 12	...	...	8 14	96	1	18	2 8	2	11	1 20	3	...	...
46	...	18	1 26	...	...	4 2 16	...	...	8 3	97	1	18	3 25	2	11	3 24	3	...	2 14
47	...	18	3 15	...	...	5 20	...	...	9 1 14	98	1	19	1 14	2	12	2 1	3	1	...
48	...	19	1 4	...	...	5 2 24	...	...	10	99	1	19	3 3	2	13	...	4	3	1 3 14
49	...	19	2 21	...	...	6 1 1	...	...	10 2 14	100	2	...	...	20	2	13	2 8	3	2 11
50	...	1	...	...	...	6 3 4	...	...	11 1	200	4	...	...	1 12	5	7	...	16	6 5 11
51	...	1	1 27	...	...	7 1 8	...	...	11 3 14	300	6	...	...	2 4	8	...	2 24	9	7 2 11

## GRAIN TABLES CONTINUED.

Number of Bushels	45lbs. per Bushel.			60lbs. per Bushel.			70lbs. per Bushel.			Number of Bushels	45lbs. per Bushel.			60lbs. per Bushel.			70lbs. per Bushel.		
	Tons	Cwts	Qrs	Tons	Cwts	Qrs	Tons	Cwts	Qrs		Tons	Cwts	Qrs	Tons	Cwts	Qrs	Tons	Cwts	Qrs
400	8	..	2	10	14	1	12	10	..	1700	34	3	..	44	10	2	53	2	2
500	10	..	3	16	13	7	3	12	15	1800	36	3	..	44	10	2	53	2	2
600	12	1	..	8	16	1	12	18	15	1900	38	3	..	44	10	2	53	2	2
700	14	1	1	18	15	..	21	17	2	2000	40	3	2	8	53	11	120	62	10
800	16	1	1	20	21	8	2	8	25	2100	42	3	3	..	56	5	..	65	12
900	18	1	2	12	24	2	..	16	28	2200	44	3	3	20	58	18	2	8	15
1000	20	1	3	4	26	15	2	24	31	2300	46	4	..	12	61	12	..	16	17
1100	22	1	3	24	29	9	1	4	34	2400	48	4	1	4	64	5	2	24	75
1200	24	2	..	16	32	2	3	12	37	2500	50	4	1	24	66	19	1	4	78
1300	26	2	1	8	34	16	1	20	40	2600	52	4	2	16	69	12	3	12	81
1400	28	2	2	..	37	10	..	43	15	2700	54	4	3	8	72	6	1	20	84
1500	30	2	2	20	40	3	2	8	46	2800	56	5	..	..	75	..	..	87	13
1600	32	2	3	12	42	17	..	16	50	2900	58	5	..	20	77	13	2	8	90

## TABLES TO CALCULATE FLOUR, &amp;c.,

At 280 and 284lbs. to the Load, at 112lbs. to the Cwt.

No. of Loads.	Loads of 280lbs. Net			Loads of 280lbs. and Sack 4lbs.			No. of Loads.	Loads of 280lbs. Net			No. of Loads.	Loads of 280lbs. and Sack 4lbs.			No. of Loads.	Loads of 280lbs. and Sack 4lbs.		
	Tons	Cwt	Qrs	Tons	Cwt	Qrs		Tons	Cwt	Qrs		Tons	Cwt	Qrs		Tons	Cwt	Qrs
1	..	2	2	..	2	2	36	4	10	..	4	11	1	4	71	8	17	2
2	..	5	..	..	5	..	37	4	12	2	4	13	3	8	72	9	..	9
3	..	7	2	..	7	2	38	4	15	..	4	16	1	12	73	9	2	2
4	..	10	..	..	10	..	39	4	17	2	4	18	3	16	74	9	5	9
5	..	12	2	..	12	2	40	5	..	..	5	1	120	75	9	7	2	9
6	..	15	..	..	15	..	41	5	2	2	5	3	324	76	9	10	..	9
7	..	17	2	..	17	3	42	5	5	..	5	6	2	..	77	9	12	2
8	1	..	..	1	..	1	43	5	7	2	5	9	..	4	78	9	15	..
9	1	2	2	1	2	3	44	5	10	..	5	11	2	8	79	9	17	2
10	1	5	..	1	5	12	45	5	12	2	5	14	..	12	80	10	..	2
11	1	7	2	1	7	3	46	5	15	..	5	16	2	16	81	10	2	2
12	1	10	..	1	10	120	47	5	17	2	5	19	..	20	82	10	5	..
13	1	12	2	1	12	324	48	6	..	..	6	1	224	83	10	7	2	10
14	1	15	..	1	15	2	49	6	2	2	6	4	1	..	84	10	10	..
15	1	17	2	1	18	..	50	6	5	..	6	6	3	4	85	10	12	2
16	2	..	..	2	..	2	51	6	7	2	6	9	1	8	86	10	15	..
17	2	2	2	2	3	..	52	6	10	..	6	11	3	12	87	10	17	2
18	2	5	..	2	5	2	53	6	12	2	6	14	1	16	88	11	..	11
19	2	7	2	2	8	..	54	6	15	..	6	16	3	20	89	11	2	2
20	2	10	2	2	10	224	55	6	17	2	6	19	1	24	90	11	5	..
21	2	12	2	2	13	1	56	7	..	..	7	2	..	..	91	11	7	2
22	2	15	..	2	15	3	57	7	2	2	7	4	2	4	92	11	10	..
23	2	17	2	2	18	1	58	7	5	..	7	7	..	8	93	11	12	2
24	3	..	..	3	..	3	59	7	7	2	7	9	2	12	94	11	15	..
25	3	2	2	3	3	1	60	7	10	..	7	12	..	16	95	11	17	2
26	3	5	3	3	5	320	61	7	12	2	7	14	2	20	96	12	..	3
27	3	7	2	3	8	124	62	7	15	..	7	17	..	24	97	12	2	2
28	3	10	..	3	11	..	63	7	17	2	7	19	3	..	98	12	5	..
29	3	12	2	3	13	2	64	8	..	..	8	2	1	4	99	12	7	2
30	3	15	..	3	16	8	65	8	2	2	8	4	3	8	100	12	10	..
31	3	17	2	3	18	2	66	8	5	..	8	7	1	12	200	25	..	25
32	4	..	..	4	1	..	67	8	7	2	8	9	3	16	300	37	10	..
33	4	2	2	4	3	220	68	8	10	..	8	12	1	20	400	50	..	50
34	4	5	..	4	6	24	69	8	12	2	8	14	3	24	500	62	10	..
35	4	7	2	4	8	3	70	8	15	..	8	17	2	..	600	75	..	76

## TABLES TO CALCULATE FLOUR, &amp;c.,

At 216lbs. to the Barrel, 240 and 244lbs. to the Load, per 112lbs. to the Cwt.

Numbr	Barrel Flour, Average Weight, 216lbs.			Loads of 240lbs Net.			Loads of 240lbs and Sack 4lbs.			Numbr	Barrel Flour, Average Weight, 216lbs.			Loads of 240lbs Net.			Loads of 240lbs and Sack 4lbs.			
	Tons.	Cwt.	Qrs/lbs.	Tons.	Cwt.	Qrs/lbs.	Tons.	Cwt.	Qrs/lbs.		Tons.	Cwt.	Qrs/lbs.	Tons.	Cwt.	Qrs/lbs.	Tons.	Cwt.	Qrs/lbs.	
1	..	1	320	..	2	..16	..	2	..20	54	5	4	..16	5	15	224	5	17	216	
2	..	3	312	..	4	..14	..	4	..112	55	5	6	..8	5	17	312	5	19	38	
3	..	5	304	..	6	..120	..	6	..24	56	5	8	..6	..	..	6	2	..	..	
4	..	7	224	..	8	..8	..	8	..224	57	5	9	320	6	2	..16	6	4	..20	
5	..	9	216	..	10	..24	..	10	..316	58	5	11	312	6	4	14	6	6	..112	
6	..	11	28	..	12	..312	..	13	..8	59	5	13	34	6	6	120	6	8	..24	
7	..	13	2	..	15	..	..	15	..1	60	5	15	224	6	8	28	6	10	..224	
8	..	15	120	..	17	..16	..	17	..120	61	5	17	216	6	10	224	6	12	..316	
9	..	17	112	..	19	..4	..	19	..212	62	5	19	28	6	12	312	6	15	..8	
10	..	19	14	1	1	120	1	1	34	63	6	1	2	6	15	..	6	17	..1	
11	1	1	..24	1	3	28	1	3	324	64	6	3	120	6	17	..16	6	19	..120	
12	1	3	..16	1	5	224	1	6	..16	65	6	5	112	6	19	14	7	1	..212	
13	1	5	..8	1	7	312	1	8	..18	66	6	7	14	7	1	120	7	3	..34	
14	1	7	..	1	10	..	1	10	..2	67	6	9	..	24	7	3	28	7	5	..324
15	1	8	320	1	12	..16	1	12	..220	68	6	11	..	26	7	5	224	7	8	..16
16	1	10	312	1	14	..4	1	14	312	69	6	13	..8	7	7	312	7	10	..18	
17	1	12	34	1	16	120	1	17	..4	70	6	15	..	7	10	..	7	12	..2	
18	1	14	224	1	18	28	1	19	..24	71	6	16	320	7	12	..16	7	14	..220	
19	1	16	216	2	..	224	2	1	116	72	6	18	312	7	14	14	7	16	..312	
20	1	18	28	2	2	312	2	3	28	73	7	..	34	7	16	120	7	19	..4	
21	2	..	2	2	5	..	2	5	3	74	7	2	224	7	18	28	8	1	..24	
22	2	2	120	2	7	..16	2	7	320	75	7	4	216	8	..	224	8	3	..116	
23	2	4	112	2	9	..4	2	10	..12	76	7	6	28	8	2	312	8	5	..28	
24	2	6	14	2	11	120	2	12	14	77	7	8	..	8	5	..	8	7	..3	
25	2	8	..24	2	13	28	2	14	124	78	7	10	120	8	7	..16	8	9	..320	
26	2	10	..16	2	15	224	2	16	216	79	7	12	112	8	9	14	8	12	..12	
27	2	12	..8	2	17	312	2	18	38	80	7	14	14	8	11	120	8	14	..14	
28	2	14	..	3	..	3	1	..	..	81	7	16	..	24	8	13	28	8	16	..124
29	2	15	320	3	2	..16	3	3	..20	82	7	18	..	18	15	224	8	18	..216	
30	2	17	312	3	4	..4	3	5	..112	83	8	..	8	17	312	9	..	38	..	
31	2	19	34	3	6	120	3	7	24	84	8	2	..	9	..	9	3	..	..	
32	3	1	224	3	8	28	3	9	224	85	8	3	320	9	2	..16	9	5	..20	
33	3	3	216	3	10	224	3	11	316	86	8	5	312	9	4	14	9	7	..112	
34	3	5	28	3	12	312	3	14	..8	87	8	7	34	9	6	120	9	9	..24	
35	3	7	..	3	15	..	3	16	..1	88	8	9	224	9	8	28	9	11	..224	
36	3	9	120	3	17	..16	3	18	120	89	8	11	216	9	10	224	9	13	..316	
37	3	11	112	3	19	..4	4	..	212	90	8	13	28	9	12	312	9	16	..8	
38	3	13	14	4	1	120	4	2	34	91	8	15	..	9	15	..	9	18	..1	
39	3	15	..24	4	3	28	4	4	324	92	8	17	120	9	17	..16	10	..	..120	
40	3	17	..16	4	5	224	4	7	..16	93	8	19	112	9	19	14	10	2	..212	
41	3	19	..8	4	7	312	4	9	18	94	9	1	14	10	1	120	10	4	..34	
42	4	1	..	4	10	..	4	11	..2	95	9	3	..	24	10	3	28	10	6	..324
43	4	2	320	4	12	..16	4	13	220	96	9	5	..16	10	5	224	10	9	..16	
44	4	4	312	4	14	..4	4	15	312	97	9	7	..8	10	7	312	10	11	..18	
45	4	6	34	4	16	120	4	18	..4	98	9	9	..	10	10	..	10	13	..2	
46	4	8	224	4	18	28	5	..	24	99	9	10	320	10	12	..16	10	15	..220	
47	4	10	216	5	2	224	5	2	116	100	9	12	312	10	14	14	10	17	..312	
48	4	12	28	5	2	312	5	4	28	200	19	5	224	21	8	28	21	15	..224	
49	4	14	..	5	5	..	5	6	3	300	28	18	28	32	2	31232	13	28	..	
50	4	16	120	5	7	..16	5	8	320	400	38	11	120	42	17	..16	43	11	..120	
51	4	18	112	5	9	..4	5	11	..12	500	48	1	453	11	1	2054	9	14	..	
52	5	..	14	5	11	120	5	13	14	600	57	17	..16	64	5	224	65	7	..16	
53	5	2	..24	5	13	28	5	15	124	700	67	10	0	075	0	0	076	5	0	..0

**GRAIN TABLES.**

BUSHELS, PECKS, GALLONS, AND QUARTS. AT GIVEN RATES PER QUARTER.

	1s.	5s.	10s.	11s.	12s.	13s.	14s.	15s.	16s.	17s.
Bu.	7 0 0 104	0 0 4 44	0 0 8 9	0 0 9 74	0 0 9 74	0 0 9 74	0 0 9 74	0 0 9 74	0 0 9 74	0 0 9 74
6	0 0 0 74	0 0 3 9	0 0 7 6	0 0 8 3	0 0 9 0	0 0 9 9	0 0 10 6	0 0 11 3	0 0 12 0	0 0 12 9
5	0 0 0 49	0 0 3 14	0 0 6 8	0 0 6 104	0 0 7 6	0 0 8 14	0 0 9 9	0 0 11 3	0 0 12 0	0 0 12 9
4	0 0 0 24	0 0 2 6	0 0 5 0	0 0 5 6	0 0 6 0	0 0 6 6	0 0 7 0	0 0 7 6	0 0 8 0	0 0 8 6
3	0 0 0 0	0 0 1 104	0 0 3 9	0 0 4 14	0 0 4 6	0 0 4 104	0 0 5 3	0 0 5 74	0 0 6 0	0 0 6 44
2	0 0 0 3	0 0 1 3	0 0 2 6	0 0 2 9	0 0 3 0	0 0 3 3	0 0 3 6	0 0 3 9	0 0 4 0	0 0 4 3
1	0 0 0 14	0 0 0 74	0 0 1 3	0 0 1 44	0 0 1 6	0 0 1 74	0 0 1 9	0 0 1 104	0 0 1 16	0 0 1 24
Pk.	3 0 0 9 1	0 0 0 54	0 0 0 114	0 0 0 1 04	0 0 0 1 14	0 0 0 1 24	0 0 0 1 32	0 0 0 1 44	0 0 0 1 6	0 0 0 1 7
2	0 0 0 04	0 0 0 34	0 0 0 74	0 0 0 1 04	0 0 0 1 14	0 0 0 1 24	0 0 0 1 32	0 0 0 1 44	0 0 0 1 6	0 0 0 1 7
1	0 0 0 04	0 0 0 14	0 0 0 34	0 0 0 4	0 0 0 44	0 0 0 44	0 0 0 54	0 0 0 64	0 0 0 6	0 0 0 64
Gal.	1 0 0 0 4	0 0 0 1	0 0 0 34	0 0 0 2	0 0 0 24	0 0 0 24	0 0 0 24	0 0 0 24	0 0 0 3	0 0 0 34
Qt.	3 0 0 0 4	0 0 0 04	0 0 0 14	0 0 0 14	0 0 0 14	0 0 0 14	0 0 0 14	0 0 0 14	0 0 0 24	0 0 0 24
2	0 0 0 0	0 0 0 0	0 0 0 1	0 0 0 1	0 0 0 1	0 0 0 14	0 0 0 14	0 0 0 14	0 0 0 14	0 0 0 14
1	0 0 0 0	0 0 0 04	0 0 0 04	0 0 0 04	0 0 0 04	0 0 0 04	0 0 0 04	0 0 0 04	0 0 0 04	0 0 0 04
	18s.	19s.	20s.	21s.	22s.	23s.	24s.	25s.	26s.	27s.
Bu.	7 0 15 9	0 16 74	0 17 6	0 18 44	0 19 8	1 0 14	1 1 0	1 1 104	1 2 9	1 3 74
6	0 13 6	0 14 3	0 15 0	0 15 9	0 16 6	0 17 3	0 18 0	0 18 9	0 19 6	1 0 3
5	0 11 3	0 11 104	0 12 6	0 13 14	0 13 9	0 14 44	0 15 0	0 15 74	0 16 3	0 16 104
4	0 9 0	0 9 6	0 10 0	0 10 6	0 11 0	0 11 6	0 12 0	0 12 6	0 13 0	0 13 6
3	0 6 9	0 7 14	0 7 6	0 7 104	0 8 3	0 8 74	0 9 0	0 9 44	0 9 9	0 10 14
2	0 4 6	0 4 9	0 5 0	0 5 3	0 5 6	0 5 9	0 6 0	0 6 3	0 6 6	0 6 9
1	0 2 3	0 2 44	0 2 6	0 2 74	0 2 9	0 2 104	0 3 0	0 3 14	0 3 3	0 3 44
Pk.	3 0 1 14	0 1 94	0 1 104	0 1 114	0 2 02	0 2 14	0 2 3	0 2 4	0 2 54	0 2 64
2	0 1 84	0 1 24	0 1 3	0 1 34	0 1 44	0 1 54	0 1 6	0 1 63	0 1 74	0 1 84
1	0 0 64	0 0 7	0 0 74	0 0 74	0 0 84	0 0 94	0 0 9	0 0 94	0 0 94	0 0 10
Gal.	1 0 0 34	0 0 0 34	0 0 0 34	0 0 0 4	0 0 4	0 0 44	0 0 44	0 0 44	0 0 44	0 0 5
Qt.	3 0 0 24	0 0 0 24	0 0 0 24	0 0 0 3	0 0 3	0 0 34	0 0 34	0 0 34	0 0 34	0 0 34
2	0 0 14	0 0 14	0 0 14	0 0 2	0 0 2	0 0 24	0 0 24	0 0 24	0 0 24	0 0 24
1	0 0 04	0 0 0 4	0 0 0 4	0 0 1	0 0 1	0 0 14	0 0 14	0 0 14	0 0 14	0 0 14
	28s.	29s.	30s.	31s.	32s.	33s.	34s.	35s.	36s.	37s.
Bu.	7 1 4 6	1 5 44	1 6 3	1 7 14	1 8 0	1 8 104	1 9 9	1 10 74	1 11 6	1 12 44
6	1 1 0	1 1 9	1 2 6	1 3 3	1 4 0	1 4 9	1 5 6	1 6 3	1 7 0	1 7 9
5	0 17 6	0 18 14	0 18 9	0 19 44	1 0 0	1 0 74	1 1 3	1 1 104	1 2 6	1 3 14
4	0 14 0	0 14 6	0 15 0	0 15 6	0 16 0	0 16 6	0 17 0	0 17 6	0 18 0	0 18 6
3	0 10 6	0 10 104	0 11 3	0 11 74	0 12 0	0 12 44	0 12 9	0 13 14	0 13 6	0 13 104
2	0 7 0	0 7 3	0 7 6	0 7 9	0 8 0	0 8 3	0 8 6	0 8 9	0 9 0	0 9 3
1	0 3 6	0 3 74	0 3 9	0 3 104	0 4 0	0 4 14	0 4 3	0 4 44	0 4 6	0 4 74
Pk.	3 0 2 74	0 2 84	0 2 94	0 2 104	0 3 0	0 3 14	0 3 24	0 3 34	0 3 44	0 3 54
2	0 1 9	0 1 94	0 1 104	0 1 114	0 2 0	0 2 02	0 2 14	0 2 24	0 2 3	0 2 34
1	0 0 104	0 0 104	0 0 114	0 0 114	0 1 0	0 1 14	0 1 02	0 1 14	0 1 14	0 1 18
Gal.	1 0 0 54	0 0 0 54	0 0 0 54	0 0 0 54	0 0 6	0 0 64	0 0 64	0 0 64	0 0 64	0 0 7
Qt.	3 0 0 4	0 0 0 4	0 0 0 44	0 0 0 44	0 0 44	0 0 44	0 0 44	0 0 44	0 0 44	0 0 54
2	0 0 24	0 0 0 24	0 0 0 24	0 0 0 3	0 0 3	0 0 34	0 0 34	0 0 34	0 0 34	0 0 34
1	0 0 14	0 0 0 14	0 0 0 14	0 0 1	0 0 14	0 0 14	0 0 14	0 0 14	0 0 14	0 0 14
	38s.	39s.	40s.	41s.	42s.	43s.	44s.	45s.	46s.	47s.
Bu.	7 1 13 3	1 14 14	1 15 0	1 15 104	1 16 9	1 17 74	1 18 6	1 19 44	2 0 3	2 1 14
6	1 8 4	1 9 3	1 10 0	1 10 9	1 11 6	1 12 3	1 13 0	1 13 9	1 14 6	1 15 3
5	1 3 9	1 4 44	1 5 0	1 5 74	1 6 3	1 6 104	1 7 6	1 8 14	1 9 9	1 9 44
4	0 19 9	0 19 6	0 20 0	0 20 6	1 1 0	1 1 6	1 2 0	1 2 6	1 3 0	1 3 6
3	0 14 3	0 14 74	0 15 0	0 15 44	0 15 9	0 16 14	0 16 6	0 16 104	0 17 3	0 17 74
2	0 9 6	0 9 9	0 10 0	0 10 3	0 10 6	0 10 9	0 11 0	0 11 3	0 11 6	0 11 9
1	0 4 9	0 4 104	0 5 0	0 5 14	0 5 3	0 5 44	0 5 6	0 5 74	0 5 9	0 5 104
Pk.	3 0 3 64	0 3 74	0 3 9	0 3 104	0 3 114	0 4 4	0 4 14	0 4 24	0 4 34	0 4 44
2	0 2 44	0 2 54	0 2 6	0 2 64	0 2 74	0 2 84	0 2 9	0 2 94	0 2 104	0 2 114
1	0 1 24	0 1 24	0 1 3	0 1 34	0 1 34	0 1 4	0 1 44	0 1 44	0 1 54	0 1 54
Gal.	1 0 0 7	0 0 0 74	0 0 0 74	0 0 0 74	0 0 74	0 0 8	0 0 8	0 0 84	0 0 84	0 0 84
Qt.	3 0 0 54	0 0 0 54	0 0 0 54	0 0 0 54	0 0 6	0 0 6	0 0 64	0 0 64	0 0 64	0 0 64
2	0 0 34	0 0 0 34	0 0 0 34	0 0 0 34	0 0 4	0 0 4	0 0 4	0 0 44	0 0 44	0 0 44
1	0 0 14	0 0 0 14	0 0 0 14	0 0 2	0 0 2	0 0 2	0 0 2	0 0 24	0 0 24	0 0 24
	48s.	49s.	50s.	51s.	52s.	53s.	54s.	55s.	56s.	57s.
Bu.	7 2 2 0	2 2 104	2 3 9	2 4 74	2 5 6	2 6 44	2 7 3	2 8 14	2 9 0	2 9 104
6	1 16 0	1 16 9	1 17 6	1 18 3	1 19 0	1 19 9	2 0 6	2 1 3	2 2 0	2 2 9
5	1 10 0	1 10 74	1 11 3	1 11 104	1 12 6	1 13 14	1 13 9	1 14 44	1 15 0	1 15 74
4	1 4 0	1 4 6	1 5 0	1 5 6	1 6 0	1 6 6	1 7 0	1 7 6	1 8 0	1 8 6
3	0 18 0	0 18 44	0 18 9	0 19 14	0 19 6	0 19 104	1 0 3	1 0 74	1 1 0	1 1 44
2	0 12 0	0 12 3	0 12 6	0 12 9	0 13 0	0 13 3	0 13 6	0 13 9	0 14 0	0 14 3
1	0 6 0	0 6 14	0 6 3	0 6 44	0 6 6	0 6 74	0 6 9	0 6 104	0 7 0	0 7 14
Pk.	3 0 4 6	0 4 7	0 4 84	0 4 94	0 4 104	0 4 114	0 5 02	0 5 12	0 5 3	0 5 4
2	0 3 0	0 3 04	0 3 14	0 3 24	0 3 3	0 3 34	0 3 44	0 3 54	0 3 6	0 3 64
1	0 0 6	0 0 64	0 0 64	0 0 7	0 0 74	0 0 74	0 0 8	0 0 84	0 0 84	0 0 94
Gal.	1 0 0 9	0 0 0 94	0 0 0 94	0 0 0 94	0 0 94	0 0 94	0 0 10	0 0 104	0 0 104	0 0 104
Qt.	3 0 0 64	0 0 0 7	0 0 0 7	0 0 0 74	0 0 74	0 0 74	0 0 74	0 0 74	0 0 74	0 0 8
2	0 0 44	0 0 0 44	0 0 0 44	0 0 0 44	0 0 44	0 0 44	0 0 5	0 0 54	0 0 54	0 0 54
1	0 0 24	0 0 0 24	0 0 0 24	0 0 0 24	0 0 24	0 0 24	0 0 24	0 0 24	0 0 24	0 0 24

# TABLES TO CALCULATE HAY AND STRAW.

From £1 to £10 per Load.

Prices per Load.	Prices per Truss.	Prices per Load.	Prices per Truss.	Prices per Load.	Prices per Truss.	Prices per Load.	Prices per Truss.	Prices per Load.	Prices per Truss.	Prices per Load.	Prices per Truss.
£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1 0	1 0	2 11	2 11	4 1	4 1	5 11	5 11	7 1	7 1	8 11	8 11
1 1	1 1	2 12	2 12	4 2	4 2	5 12	5 12	7 2	7 2	8 12	8 12
1 2	1 2	2 13	2 13	4 3	4 3	5 13	5 13	7 3	7 3	8 13	8 13
1 3	1 3	2 14	2 14	4 4	4 4	5 14	5 14	7 4	7 4	8 14	8 14
1 4	1 4	2 15	2 15	4 5	4 5	5 15	5 15	7 5	7 5	8 15	8 15
1 5	1 5	2 16	2 16	4 6	4 6	5 16	5 16	7 6	7 6	8 16	8 16
1 6	1 6	2 17	2 17	4 7	4 7	5 17	5 17	7 7	7 7	8 17	8 17
1 7	1 7	2 18	2 18	4 8	4 8	5 18	5 18	7 8	7 8	8 18	8 18
1 8	1 8	2 19	2 19	4 9	4 9	5 19	5 19	7 9	7 9	8 19	8 19
1 9	1 9	3 0	3 0	4 10	4 10	6 0	6 0	7 10	7 10	9 0	9 0
1 10	1 10	3 1	3 1	4 11	4 11	6 1	6 1	7 11	7 11	9 1	9 1
1 11	1 11	3 2	3 2	4 12	4 12	6 2	6 2	7 12	7 12	9 2	9 2
1 12	1 12	3 3	3 3	4 13	4 13	6 3	6 3	7 13	7 13	9 3	9 3
1 13	1 13	3 4	3 4	4 14	4 14	6 4	6 4	7 14	7 14	9 4	9 4
1 14	1 14	3 5	3 5	4 15	4 15	6 5	6 5	7 15	7 15	9 5	9 5
1 15	1 15	3 6	3 6	4 16	4 16	6 6	6 6	7 16	7 16	9 6	9 6
1 16	1 16	3 7	3 7	4 17	4 17	6 7	6 7	7 17	7 17	9 7	9 7
1 17	1 17	3 8	3 8	4 18	4 18	6 8	6 8	7 18	7 18	9 8	9 8
1 18	1 18	3 9	3 9	4 19	4 19	6 9	6 9	7 19	7 19	9 9	9 9
1 19	1 19	3 10	3 10	5 0	5 0	6 10	6 10	8 0	8 0	9 10	9 10
2 0	2 0	3 11	3 11	5 1	5 1	6 11	6 11	8 1	8 1	9 11	9 11
2 1	2 1	3 12	3 12	5 2	5 2	6 12	6 12	8 2	8 2	9 12	9 12
2 2	2 2	3 13	3 13	5 3	5 3	6 13	6 13	8 3	8 3	9 13	9 13
2 3	2 3	3 14	3 14	5 4	5 4	6 14	6 14	8 4	8 4	9 14	9 14
2 4	2 4	3 15	3 15	5 5	5 5	6 15	6 15	8 5	8 5	9 15	9 15
2 5	2 5	3 16	3 16	5 6	5 6	6 16	6 16	8 6	8 6	9 16	9 16
2 6	2 6	3 17	3 17	5 7	5 7	6 17	6 17	8 7	8 7	9 17	9 17
2 7	2 7	3 18	3 18	5 8	5 8	6 18	6 18	8 8	8 8	9 18	9 18
2 8	2 8	3 19	3 19	5 9	5 9	6 19	6 19	8 9	8 9	9 19	9 19
2 9	2 9	4 0	4 0	5 10	5 10	7 0	7 0	8 10	8 10	10 0	10 0
2 10	2 10	4 1	4 1								

## HAY AND STRAW WEIGHT.

36 lbs. Avoirdupois of Straw, make one Truss.  
 56 do. .... of old Hay .. one Truss.  
 60 do. .... of new Hay .. one Truss.  
 36 Trusses ..... one Load.

Hence a load of Straw weighs 11 cwt. and four-sevenths; a load of old Hay 18 cwt.; a load of new Hay 19 cwt. and 32 lbs. Avoirdupois.

By Act 36 Geo. III. c. 88, each Truss of Hay, sold between the 31st of August in any year, and the 1st of June in the succeeding year, must weigh 56lbs, and every Truss of Hay, sold between the 1st of June and the 31st of August, being new Hay of the summer's Grass of that year, shall weigh 60lbs.

### OBSERVATION.

The above Table is so simple, it needs no explanation. It may, however, be requisite to state, that at the different amounts where the ODD FARTHING, or HALFPENCE, are calculated, it is necessary, on account of the FRACTIONAL PARTS, to ADD A FARTHING UPON EACH TRUSS, which will make the amount of Straw or Hay sold preponderate a little in the seller's favour.

### RULE FOR ASCERTAINING THE WEIGHT OF HAY STACKS.

Measure the length and breadth of the stack; then take its height from the ground to the eaves, and add to this last one-third of the height from the eaves to the top: Multiply the length by the breadth, and the product by the height, all expressed in feet; divide the amount by 27, to find the cubic yards, which multiply by the number of stones supposed to be in a cubic yard (viz. in a stack of new hay, six stones; if the stack has stood a considerable time, eight stones; and if old hay, nine stones), and you have the weight in stones. For example, suppose a stack to be 60 feet in length, 30 in breadth, 12 in height from the ground to the eaves, and 9 (the third of which is 3) from the eaves to the top; then  $60 \times 30 \times 15 = 27000$ ;  $27000 \div 27 = 1000$ ; and  $1000 \times 9 = 9000$  stones of old hay.

## CORN OR SEED TABLE,

DIRECTING HOW TO SELL OR BUY CORN, SEEDS, &c., BY THE QUARTER, BUSHEL, OR PECK, FROM TEN SHILLINGS, TO SIX POUNDS NINE SHILLINGS PER QUARTER

Price per Quarter, of 8 Bushels.	Per Bushel.	Per Peck.	Price per Quarter, of 8 Bushels.	Per Bushel.	Per Peck.	Price per Quarter, of 8 Bushels.	Per Bushel.	Per Peck.	Price per Quarter, of 8 Bushels.	Per Bushel.	Per Peck.
0 10 0	1 3	0 3 $\frac{3}{4}$	2 0 0	5 0	1 3	3 10 0	8 9	2 2 $\frac{1}{2}$	5 0 0	12 6	3 1 $\frac{1}{2}$
0 11 0	1 4 $\frac{1}{2}$	0 4	2 1 0	5 1 $\frac{1}{2}$	1 3 $\frac{1}{2}$	3 11 0	8 10 $\frac{1}{2}$	2 2 $\frac{3}{4}$	5 1 0	12 7 $\frac{1}{2}$	3 1 $\frac{3}{4}$
0 12 0	1 6	0 4 $\frac{1}{2}$	2 2 0	5 3	1 3 $\frac{3}{4}$	3 12 0	9 0	2 3	5 2 0	12 9	3 2 $\frac{1}{2}$
0 13 0	1 7 $\frac{1}{2}$	0 4 $\frac{3}{4}$	2 3 0	5 4 $\frac{1}{2}$	1 4	3 13 0	9 1 $\frac{1}{2}$	2 3 $\frac{1}{4}$	5 3 0	12 10 $\frac{1}{2}$	3 2 $\frac{3}{4}$
0 14 0	1 9	0 5 $\frac{1}{4}$	2 4 0	5 6	1 4 $\frac{1}{2}$	3 14 0	9 3	2 3 $\frac{1}{2}$	5 4 0	13 0	3 3
0 15 0	1 10 $\frac{1}{2}$	0 5 $\frac{1}{2}$	2 5 0	5 7 $\frac{1}{2}$	1 4 $\frac{3}{4}$	3 15 0	9 4 $\frac{1}{2}$	2 4	5 5 0	13 1 $\frac{1}{2}$	3 3 $\frac{1}{2}$
0 16 0	2 0	0 6	2 6 0	5 9	1 5 $\frac{1}{4}$	3 16 0	9 6	2 4 $\frac{1}{2}$	5 6 0	13 3	3 3 $\frac{3}{4}$
0 17 0	2 1 $\frac{1}{2}$	0 6 $\frac{1}{2}$	2 7 0	5 10 $\frac{1}{2}$	1 5 $\frac{1}{2}$	3 17 0	9 7 $\frac{1}{2}$	2 4 $\frac{3}{4}$	5 7 0	13 4 $\frac{1}{2}$	3 4
0 18 0	2 3	0 6 $\frac{3}{4}$	2 8 0	6 0	1 6	3 18 0	9 9	2 5 $\frac{1}{4}$	5 8 0	13 6	3 4 $\frac{1}{2}$
0 19 0	2 4 $\frac{1}{2}$	0 7	2 9 0	6 1 $\frac{1}{2}$	1 6 $\frac{1}{4}$	3 19 0	9 10 $\frac{1}{2}$	2 5 $\frac{1}{2}$	5 9 0	13 7 $\frac{1}{2}$	3 4 $\frac{3}{4}$
1 0 0	2 6	0 7 $\frac{1}{2}$	2 10 0	6 3	1 6 $\frac{3}{4}$	4 0 0	10 0	2 6	5 10 0	13 9	3 5 $\frac{1}{2}$
1 1 0	2 7 $\frac{1}{2}$	0 7 $\frac{3}{4}$	2 11 0	6 4 $\frac{1}{2}$	1 7	4 1 0	10 1 $\frac{1}{2}$	2 6 $\frac{1}{4}$	5 11 0	13 10 $\frac{1}{2}$	3 5 $\frac{3}{4}$
1 2 0	2 9	0 8 $\frac{1}{4}$	2 12 0	6 6	1 7 $\frac{1}{2}$	4 2 0	10 3	2 6 $\frac{1}{2}$	5 12 0	14 0	3 6
1 3 0	2 10 $\frac{1}{2}$	0 8 $\frac{1}{2}$	2 13 0	6 7 $\frac{1}{2}$	1 7 $\frac{3}{4}$	4 3 0	10 4 $\frac{1}{2}$	2 7	5 13 0	14 1 $\frac{1}{2}$	3 6 $\frac{1}{2}$
1 4 0	3 0	0 9	2 14 0	6 9	1 8 $\frac{1}{4}$	4 4 0	10 6	2 7 $\frac{1}{2}$	5 14 0	14 3	3 6 $\frac{3}{4}$
1 5 0	3 1 $\frac{1}{2}$	0 9 $\frac{1}{2}$	2 15 0	6 10 $\frac{1}{2}$	1 8 $\frac{1}{2}$	4 5 0	10 7 $\frac{1}{2}$	2 7 $\frac{3}{4}$	5 15 0	14 4 $\frac{1}{2}$	3 7
1 6 0	3 3	0 9 $\frac{3}{4}$	2 16 0	7 0	1 9	4 6 0	10 9	2 8 $\frac{1}{4}$	5 16 0	14 6	3 7 $\frac{1}{2}$
1 7 0	3 4 $\frac{1}{2}$	0 10	2 17 0	7 1 $\frac{1}{2}$	1 9 $\frac{1}{4}$	4 7 0	10 10 $\frac{1}{2}$	2 8 $\frac{1}{2}$	5 17 0	14 7 $\frac{1}{2}$	3 7 $\frac{3}{4}$
1 8 0	3 6	0 10 $\frac{1}{2}$	2 18 0	7 3	1 9 $\frac{1}{2}$	4 8 0	11 0	2 9	5 18 0	14 9	3 8 $\frac{1}{2}$
1 9 0	3 7 $\frac{1}{2}$	0 10 $\frac{3}{4}$	2 19 0	7 4 $\frac{1}{2}$	1 10	4 9 0	11 1 $\frac{1}{2}$	2 9 $\frac{1}{4}$	5 19 0	14 10 $\frac{1}{2}$	3 8 $\frac{3}{4}$
1 10 0	3 9	0 11 $\frac{1}{4}$	3 0 0	7 6	1 10 $\frac{1}{2}$	4 10 0	11 3	2 9 $\frac{1}{2}$	6 0 0	15 0	3 9
1 11 0	3 10 $\frac{1}{2}$	0 11 $\frac{1}{2}$	3 1 0	7 7 $\frac{1}{2}$	1 10 $\frac{3}{4}$	4 11 0	11 4 $\frac{1}{2}$	2 10	6 1 0	15 1 $\frac{1}{2}$	3 9 $\frac{1}{2}$
1 12 0	4 0	0 1 0	3 2 0	7 9	1 11 $\frac{1}{4}$	4 12 0	11 6	2 10 $\frac{1}{2}$	6 2 0	15 3	3 9 $\frac{3}{4}$
1 13 0	4 1 $\frac{1}{2}$	0 1 $\frac{1}{4}$	3 3 0	7 10 $\frac{1}{2}$	1 11 $\frac{1}{2}$	4 13 0	11 7 $\frac{1}{2}$	2 10 $\frac{3}{4}$	6 3 0	15 4 $\frac{1}{2}$	3 10
1 14 0	4 3	0 1 $\frac{1}{2}$	3 4 0	8 0	2 0	4 14 0	11 9	2 11 $\frac{1}{4}$	6 4 0	15 6	3 10 $\frac{1}{2}$
1 15 0	4 4 $\frac{1}{2}$	1 1	3 5 0	8 1 $\frac{1}{2}$	2 0 $\frac{1}{4}$	4 15 0	11 10 $\frac{1}{2}$	2 11 $\frac{1}{2}$	6 5 0	15 7 $\frac{1}{2}$	3 10 $\frac{3}{4}$
1 16 0	4 6	1 1 $\frac{1}{2}$	3 6 0	8 3	2 0 $\frac{1}{2}$	4 16 0	12 0	3 0	6 6 0	15 9	3 11 $\frac{1}{2}$
1 17 0	4 7 $\frac{1}{2}$	1 1 $\frac{3}{4}$	3 7 0	8 4 $\frac{1}{2}$	2 1	4 17 0	12 1 $\frac{1}{2}$	3 0 $\frac{1}{4}$	6 7 0	15 10 $\frac{1}{2}$	3 11 $\frac{3}{4}$
1 18 0	4 9	1 2 $\frac{1}{4}$	3 8 0	8 6	2 1 $\frac{1}{2}$	4 18 0	12 3	3 0 $\frac{1}{2}$	6 8 0	16 0	4 0
1 19 0	4 10 $\frac{1}{2}$	1 2 $\frac{3}{4}$	3 9 0	8 7 $\frac{1}{2}$	2 1 $\frac{3}{4}$	4 19 0	12 4 $\frac{1}{2}$	3 1	6 9 0	16 1 $\frac{1}{2}$	4 0 $\frac{1}{2}$

## FLOUR OR MEAL TABLE,

DIRECTING HOW TO BUY OR SELL FLOUR OR MEAL PER THE SACK, BUSHEL, PECK, STONE, OR POUND, FROM TEN SHILLINGS TO SEVEN POUNDS PER SACK.

At per Sack of Flour of Five Bushels, or 280lbs.	Per Bushel of 56lbs.	Per Stone or Peck of 14lbs.	Per Half Peck of 7lbs.	Per lb.	At per Sack of Flour of Five Bushels, or 280lbs.	Per Bushel of 56lbs.	Per Stone or Peck of 14lbs.	Per Half Peck of 7lbs.	Per lb.
0 10 0	0 2 0	0 0 6	0 0 3	0 $\frac{1}{2}$	1 7 0	0 5 4 $\frac{3}{4}$	0 1 4	0 0 8	1
0 15 0	0 3 0	0 0 9	0 0 4 $\frac{1}{2}$	0 $\frac{1}{2}$	1 8 0	0 5 7	0 1 4 $\frac{1}{2}$	0 0 8 $\frac{1}{2}$	1
1 0 0	0 4 0	0 1 0	0 0 6	0 $\frac{3}{4}$	1 9 0	0 5 9 $\frac{1}{2}$	0 1 5 $\frac{1}{2}$	0 0 8 $\frac{3}{4}$	1
1 1 0	0 4 2 $\frac{1}{2}$	0 1 0 $\frac{1}{2}$	0 0 6 $\frac{1}{4}$	0 $\frac{3}{4}$	1 10 0	0 6 0	0 1 6	0 0 9	1 $\frac{1}{2}$
1 2 0	0 4 4 $\frac{1}{2}$	0 1 1	0 0 6 $\frac{1}{2}$	0 $\frac{3}{4}$	1 11 0	0 6 2 $\frac{1}{2}$	0 1 6 $\frac{1}{2}$	0 0 9 $\frac{1}{2}$	1 $\frac{1}{2}$
1 3 0	0 4 7	0 1 1 $\frac{1}{4}$	0 0 6 $\frac{3}{4}$	0 $\frac{3}{4}$	1 12 0	0 6 4 $\frac{1}{2}$	0 1 7	0 0 9 $\frac{3}{4}$	1 $\frac{1}{2}$
1 4 0	0 4 9 $\frac{1}{2}$	0 1 2 $\frac{1}{4}$	0 0 7	1	1 13 0	0 6 7	0 1 7 $\frac{1}{2}$	0 0 9 $\frac{3}{4}$	1 $\frac{1}{2}$
1 5 0	0 5 0	0 1 3	0 0 7 $\frac{1}{2}$	1	1 14 0	0 6 9 $\frac{1}{2}$	0 1 8 $\frac{1}{4}$	0 0 10	1 $\frac{1}{2}$
1 6 0	0 5 2 $\frac{1}{2}$	0 1 3 $\frac{1}{2}$	0 0 7 $\frac{3}{4}$	1	1 15 0	0 7 0	0 1 9	0 0 10 $\frac{1}{2}$	1 $\frac{1}{2}$

## FLOUR OR MEAL TABLE CONTINUED.

At per Sack of Flour of Five Bushels, or 280 lbs.	Per Bushel of 56 lbs.	Per Stone or Peck of 14 lbs.	Per Half Peck of 7 lbs.	Per lb.	At per Sack of Flour of Five Bushels, or 280 lbs.	Per Bushel of 56 lbs.	Per Stone or Peck of 14 lbs.	Per Half Peck of 7 lbs.	Per lb.
1 16 0	0 7 2 $\frac{1}{4}$	0 1 9 $\frac{1}{2}$	0 0 10 $\frac{3}{4}$	1 $\frac{1}{2}$	4 9 0	0 17 9 $\frac{1}{2}$	0 4 5 $\frac{1}{4}$	0 2 2 $\frac{1}{2}$	3 $\frac{1}{4}$
1 17 0	0 7 4 $\frac{3}{4}$	0 1 10	0 0 11	1 $\frac{1}{2}$	4 10 0	0 18 0	0 4 6	0 2 3	3 $\frac{1}{4}$
1 18 0	0 7 7	0 1 10 $\frac{1}{2}$	0 0 11 $\frac{1}{2}$	1 $\frac{1}{2}$	4 11 0	0 18 2 $\frac{1}{4}$	0 4 6 $\frac{1}{2}$	0 2 3 $\frac{1}{4}$	3 $\frac{1}{4}$
1 19 0	0 7 9 $\frac{1}{2}$	0 1 11 $\frac{1}{4}$	0 0 11 $\frac{1}{2}$	1 $\frac{1}{2}$	4 12 0	0 18 4 $\frac{1}{4}$	0 4 7	0 2 3 $\frac{3}{4}$	3 $\frac{3}{4}$
2 0 0	0 8 0	0 2 0	0 1 0	1 $\frac{1}{2}$	4 13 0	0 18 7	0 4 7 $\frac{1}{2}$	0 2 3 $\frac{3}{4}$	3 $\frac{3}{4}$
2 1 0	0 8 2 $\frac{1}{4}$	0 2 0 $\frac{1}{2}$	0 1 0 $\frac{1}{4}$	1 $\frac{3}{4}$	4 14 0	0 18 9 $\frac{1}{2}$	0 4 8 $\frac{1}{4}$	0 2 4	4
2 2 0	0 8 4 $\frac{3}{4}$	0 2 1	0 1 0 $\frac{1}{2}$	1 $\frac{3}{4}$	4 15 0	0 19 0	0 4 9	0 2 4 $\frac{1}{4}$	4
2 3 0	0 8 7	0 2 1 $\frac{1}{2}$	0 1 0 $\frac{1}{2}$	1 $\frac{3}{4}$	4 16 0	0 19 2 $\frac{1}{4}$	0 4 9 $\frac{1}{2}$	0 2 4 $\frac{1}{2}$	4
2 4 0	0 8 9 $\frac{1}{2}$	0 2 2 $\frac{1}{4}$	0 1 1	1 $\frac{3}{4}$	4 17 0	0 19 4 $\frac{1}{4}$	0 4 10	0 2 5	4
2 5 0	0 9 0	0 2 3	0 1 1 $\frac{1}{2}$	1 $\frac{3}{4}$	4 18 0	0 19 7	0 4 10 $\frac{1}{2}$	0 2 5 $\frac{1}{4}$	4
2 6 0	0 9 2 $\frac{1}{4}$	0 2 3 $\frac{1}{2}$	0 1 1 $\frac{1}{2}$	1 $\frac{3}{4}$	4 19 0	0 19 9 $\frac{1}{2}$	0 4 11 $\frac{1}{4}$	0 2 5 $\frac{1}{2}$	4
2 7 0	0 9 4 $\frac{3}{4}$	0 2 4	0 1 2	2	5 0 0	1 0 0	0 5 0	0 2 6	4 $\frac{1}{4}$
2 8 0	0 9 7	0 2 4 $\frac{1}{2}$	0 1 2 $\frac{1}{2}$	2	5 1 0	1 0 2 $\frac{1}{4}$	0 5 0 $\frac{1}{2}$	0 2 6 $\frac{1}{4}$	4 $\frac{1}{4}$
2 9 0	0 9 9 $\frac{1}{2}$	0 2 5 $\frac{1}{4}$	0 1 2 $\frac{1}{2}$	2	5 2 0	1 0 4 $\frac{1}{4}$	0 5 1	0 2 6 $\frac{1}{2}$	4 $\frac{1}{4}$
2 10 0	0 10 0	0 2 6	0 1 3	2	5 3 0	1 0 7	0 5 1 $\frac{1}{2}$	0 2 6 $\frac{3}{4}$	4 $\frac{1}{4}$
2 11 0	0 10 2 $\frac{1}{4}$	0 2 6 $\frac{1}{2}$	0 1 3 $\frac{1}{2}$	2	5 4 0	1 0 9 $\frac{1}{2}$	0 5 2 $\frac{1}{4}$	0 2 7	4 $\frac{1}{4}$
2 12 0	0 10 4 $\frac{3}{4}$	0 2 7	0 1 3 $\frac{1}{2}$	2	5 5 0	1 1 0	0 5 3	0 2 7 $\frac{1}{4}$	4 $\frac{1}{4}$
2 13 0	0 10 7	0 2 7 $\frac{1}{2}$	0 1 3 $\frac{1}{2}$	2 $\frac{1}{4}$	5 6 0	1 1 2 $\frac{1}{4}$	0 5 3 $\frac{1}{2}$	0 2 7 $\frac{1}{2}$	4 $\frac{1}{2}$
2 14 0	0 10 9 $\frac{1}{2}$	0 2 8 $\frac{1}{4}$	0 1 4	2 $\frac{1}{4}$	5 7 0	1 1 4 $\frac{1}{4}$	0 5 4	0 2 8	4 $\frac{1}{2}$
2 15 0	0 11 0	0 2 9	0 1 4 $\frac{1}{2}$	2 $\frac{1}{4}$	5 8 0	1 1 7	0 5 4 $\frac{1}{2}$	0 2 8 $\frac{1}{4}$	4 $\frac{1}{2}$
2 16 0	0 11 2 $\frac{1}{4}$	0 2 9 $\frac{1}{2}$	0 1 4 $\frac{1}{2}$	2 $\frac{1}{4}$	5 9 0	1 1 9 $\frac{1}{2}$	0 5 5 $\frac{1}{4}$	0 2 8 $\frac{1}{2}$	4 $\frac{1}{2}$
2 17 0	0 11 4 $\frac{3}{4}$	0 2 10	0 1 5	2 $\frac{1}{4}$	5 10 0	1 2 0	0 5 6	0 2 9	4 $\frac{1}{2}$
2 18 0	0 11 7	0 2 10 $\frac{1}{2}$	0 1 5 $\frac{1}{2}$	2 $\frac{1}{4}$	5 11 0	1 2 2 $\frac{1}{4}$	0 5 6 $\frac{1}{2}$	0 2 9 $\frac{1}{4}$	4 $\frac{1}{2}$
2 19 0	0 11 9 $\frac{1}{2}$	0 2 11 $\frac{1}{4}$	0 1 5 $\frac{1}{2}$	2 $\frac{1}{2}$	5 12 0	1 2 4 $\frac{1}{4}$	0 5 7	0 2 9 $\frac{1}{2}$	4 $\frac{1}{2}$
3 0 0	0 12 0	0 3 0	0 1 6	2 $\frac{1}{2}$	5 13 0	1 2 7	0 5 7 $\frac{1}{2}$	0 2 9 $\frac{3}{4}$	4 $\frac{1}{2}$
3 1 0	0 12 2 $\frac{1}{4}$	0 3 0 $\frac{1}{2}$	0 1 6 $\frac{1}{2}$	2 $\frac{1}{2}$	5 14 0	1 2 9 $\frac{1}{2}$	0 5 8 $\frac{1}{4}$	0 2 10	4 $\frac{1}{2}$
3 2 0	0 12 4 $\frac{3}{4}$	0 3 1	0 1 6 $\frac{1}{2}$	2 $\frac{1}{2}$	5 15 0	1 3 0	0 5 9	0 2 10 $\frac{1}{4}$	4 $\frac{1}{2}$
3 3 0	0 12 7	0 3 1 $\frac{1}{2}$	0 1 6 $\frac{1}{2}$	2 $\frac{1}{2}$	5 16 0	1 3 2 $\frac{1}{4}$	0 5 9 $\frac{1}{2}$	0 2 10 $\frac{1}{2}$	4 $\frac{1}{2}$
3 4 0	0 12 9 $\frac{1}{2}$	0 3 2 $\frac{1}{4}$	0 1 7	2 $\frac{1}{2}$	5 17 0	1 3 4 $\frac{1}{4}$	0 5 10	0 2 11	5
3 5 0	0 13 0	0 3 3	0 1 7 $\frac{1}{2}$	2 $\frac{1}{2}$	5 18 0	1 3 7	0 5 10 $\frac{1}{2}$	0 2 11 $\frac{1}{4}$	5
3 6 0	0 13 2 $\frac{1}{4}$	0 3 3 $\frac{1}{2}$	0 1 7 $\frac{1}{2}$	2 $\frac{1}{2}$	5 19 0	1 3 9 $\frac{1}{2}$	0 5 11 $\frac{1}{4}$	0 2 11 $\frac{1}{2}$	5
3 7 0	0 13 4 $\frac{3}{4}$	0 3 4	0 1 8	2 $\frac{3}{4}$	6 0 0	1 4 0	0 6 0	0 3 0	5
3 8 0	0 13 7	0 3 4 $\frac{1}{2}$	0 1 8 $\frac{1}{2}$	2 $\frac{3}{4}$	6 1 0	1 4 2 $\frac{1}{4}$	0 6 0 $\frac{1}{2}$	0 3 0 $\frac{1}{4}$	5
3 9 0	0 13 9 $\frac{1}{2}$	0 3 5 $\frac{1}{4}$	0 1 8 $\frac{1}{2}$	2 $\frac{3}{4}$	6 2 0	1 4 4 $\frac{1}{4}$	0 6 1	0 3 0 $\frac{1}{2}$	5
3 10 0	0 14 0	0 3 6	0 1 9	3	6 3 0	1 4 7	0 6 1 $\frac{1}{2}$	0 3 0 $\frac{3}{4}$	5 $\frac{1}{4}$
3 11 0	0 14 2 $\frac{1}{4}$	0 3 6 $\frac{1}{2}$	0 1 9 $\frac{1}{2}$	3	6 4 0	1 4 9 $\frac{1}{2}$	0 6 2 $\frac{1}{4}$	0 3 1	5 $\frac{1}{4}$
3 12 0	0 14 4 $\frac{3}{4}$	0 3 7	0 1 9 $\frac{1}{2}$	3	6 5 0	1 5 0	0 6 3	0 3 1 $\frac{1}{4}$	5 $\frac{1}{4}$
3 13 0	0 14 7	0 3 7 $\frac{1}{2}$	0 1 9 $\frac{1}{2}$	3	6 6 0	1 5 2 $\frac{1}{4}$	0 6 3 $\frac{1}{2}$	0 3 1 $\frac{1}{2}$	5 $\frac{1}{4}$
3 14 0	0 14 9 $\frac{1}{2}$	0 3 8 $\frac{1}{4}$	0 1 10	3	6 7 0	1 5 4 $\frac{1}{4}$	0 6 4	0 3 2	5 $\frac{1}{4}$
3 15 0	0 15 0	0 3 9	0 1 10 $\frac{1}{2}$	3	6 8 0	1 5 7	0 6 4 $\frac{1}{2}$	0 3 2 $\frac{1}{4}$	5 $\frac{1}{4}$
3 16 0	0 15 2 $\frac{1}{4}$	0 3 9 $\frac{1}{2}$	0 1 10 $\frac{1}{2}$	3 $\frac{1}{4}$	6 9 0	1 5 9 $\frac{1}{2}$	0 6 5 $\frac{1}{4}$	0 3 2 $\frac{1}{2}$	5 $\frac{1}{4}$
3 17 0	0 15 4 $\frac{3}{4}$	0 3 10	0 1 11	3 $\frac{1}{4}$	6 10 0	1 6 0	0 6 6	0 3 3	5 $\frac{1}{4}$
3 18 0	0 15 7	0 3 10 $\frac{1}{2}$	0 1 11 $\frac{1}{2}$	3 $\frac{1}{4}$	6 11 0	1 6 2 $\frac{1}{4}$	0 6 6 $\frac{1}{2}$	0 3 3 $\frac{1}{4}$	5 $\frac{1}{4}$
3 19 0	0 15 9 $\frac{1}{2}$	0 3 11 $\frac{1}{4}$	0 1 11 $\frac{1}{2}$	3 $\frac{1}{4}$	6 12 0	1 6 4 $\frac{1}{4}$	0 6 7	0 3 3 $\frac{1}{2}$	5 $\frac{1}{4}$
4 0 0	0 16 0	0 4 0	0 2 0	3 $\frac{1}{2}$	6 13 0	1 6 7	0 6 7 $\frac{1}{2}$	0 3 3 $\frac{3}{4}$	5 $\frac{1}{4}$
4 1 0	0 16 2 $\frac{1}{4}$	0 4 0 $\frac{1}{2}$	0 2 0 $\frac{1}{4}$	3 $\frac{1}{2}$	6 14 0	1 6 9 $\frac{1}{2}$	0 6 8 $\frac{1}{4}$	0 3 4	5 $\frac{1}{4}$
4 2 0	0 16 4 $\frac{3}{4}$	0 4 1	0 2 0 $\frac{1}{2}$	3 $\frac{1}{2}$	6 15 0	1 7 0	0 6 9	0 3 4 $\frac{1}{4}$	5 $\frac{1}{4}$
4 3 0	0 16 7	0 4 1 $\frac{1}{2}$	0 2 0 $\frac{1}{2}$	3 $\frac{1}{2}$	6 16 0	1 7 2 $\frac{1}{4}$	0 6 9 $\frac{1}{2}$	0 3 4 $\frac{1}{2}$	5 $\frac{1}{4}$
4 4 0	0 16 9 $\frac{1}{2}$	0 4 2 $\frac{1}{4}$	0 2 1	3 $\frac{1}{2}$	6 17 0	1 7 4 $\frac{1}{4}$	0 6 10	0 3 5	5 $\frac{1}{4}$
4 5 0	0 17 0	0 4 3	0 2 1 $\frac{1}{2}$	3 $\frac{1}{2}$	6 18 0	1 7 7	0 6 10 $\frac{1}{2}$	0 3 5 $\frac{1}{4}$	5 $\frac{1}{4}$
4 6 0	0 17 2 $\frac{1}{4}$	0 4 3 $\frac{1}{2}$	0 2 1 $\frac{1}{2}$	3 $\frac{1}{2}$	6 19 0	1 7 9 $\frac{1}{2}$	0 6 11 $\frac{1}{4}$	0 3 5 $\frac{1}{2}$	5 $\frac{1}{4}$
4 7 0	0 17 4 $\frac{3}{4}$	0 4 4	0 2 2	3 $\frac{1}{2}$	7 0 0	1 8 0	0 7 0	0 3 6	6
4 8 0	0 17 7	0 4 4 $\frac{1}{2}$	0 2 2 $\frac{1}{2}$	3 $\frac{1}{2}$					

# TABLE

To calculate the Price per Stone of 8 or 14lbs.  
and 112lbs.,

From One Farthing to Two Shillings per Pound.

PRICES per lb.			Per Stone of 8lbs.	Per Stone of 14lbs.	Per Cwt. of 112lbs.	PRICES per lb.			Per Stone of 8lbs.	Per Stone of 14lbs.	Per Cwt. of 112lbs.
£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
0	0	0 $\frac{1}{4}$	0	0	2	0	0	3 $\frac{1}{2}$	0	2	4
0	0	0 $\frac{1}{2}$	0	0	4	0	0	7	0	4	8
0	0	0 $\frac{3}{4}$	0	0	6	0	0	10 $\frac{1}{2}$	0	7	0
0	0	1	0	0	8	0	1	2	0	9	4
0	0	1 $\frac{1}{4}$	0	0	10	0	1	5 $\frac{1}{2}$	0	11	8
0	0	1 $\frac{1}{2}$	0	1	0	0	1	9	0	14	0
0	0	1 $\frac{3}{4}$	0	1	2	0	2	0 $\frac{1}{2}$	0	16	4
0	0	2	0	1	4	0	2	4	0	18	8
0	0	2 $\frac{1}{4}$	0	1	6	0	2	7 $\frac{1}{2}$	1	1	0
0	0	2 $\frac{1}{2}$	0	1	8	0	2	11	1	3	4
0	0	2 $\frac{3}{4}$	0	1	10	0	3	2 $\frac{1}{2}$	1	5	8
0	0	3	0	2	0	0	3	6	1	8	0
0	0	3 $\frac{1}{4}$	0	2	2	0	3	9 $\frac{1}{2}$	1	10	4
0	0	3 $\frac{1}{2}$	0	2	4	0	4	1	1	12	8
0	0	3 $\frac{3}{4}$	0	2	6	0	4	4 $\frac{1}{2}$	1	15	0
0	0	4	0	2	8	0	4	8	1	17	4
0	0	4 $\frac{1}{4}$	0	2	10	0	4	11 $\frac{1}{2}$	1	19	8
0	0	4 $\frac{1}{2}$	0	3	0	0	5	3	2	2	0
0	0	4 $\frac{3}{4}$	0	3	2	0	5	6 $\frac{1}{2}$	2	4	4
0	0	5	0	3	4	0	5	10	2	6	8
0	0	5 $\frac{1}{4}$	0	3	6	0	6	1 $\frac{1}{2}$	2	9	0
0	0	5 $\frac{1}{2}$	0	3	8	0	6	5	2	11	4
0	0	5 $\frac{3}{4}$	0	3	10	0	6	8 $\frac{1}{2}$	2	13	8
0	0	6	0	4	0	0	7	0	2	16	0
0	0	6 $\frac{1}{4}$	0	4	2	0	7	3 $\frac{1}{2}$	2	18	4
0	0	6 $\frac{1}{2}$	0	4	4	0	7	7	3	0	8
0	0	6 $\frac{3}{4}$	0	4	6	0	7	10 $\frac{1}{2}$	3	3	0
0	0	7	0	4	8	0	8	2	3	5	4
0	0	7 $\frac{1}{4}$	0	4	10	0	8	5 $\frac{1}{2}$	3	7	8
0	0	7 $\frac{1}{2}$	0	5	0	0	8	9	3	10	0
0	0	7 $\frac{3}{4}$	0	5	2	0	9	0 $\frac{1}{2}$	3	12	4
0	0	8	0	5	4	0	9	4	3	14	8
0	0	8 $\frac{1}{4}$	0	5	6	0	9	7 $\frac{1}{2}$	3	17	0
0	0	8 $\frac{1}{2}$	0	5	8	0	9	11	3	19	4
0	0	8 $\frac{3}{4}$	0	5	10	0	10	2 $\frac{1}{2}$	4	1	8
0	0	9	0	6	0	0	10	6	4	4	0
0	0	9 $\frac{1}{4}$	0	6	2	0	10	9 $\frac{1}{2}$	4	6	4
0	0	9 $\frac{1}{2}$	0	6	4	0	11	1	4	8	0
0	0	9 $\frac{3}{4}$	0	6	6	0	11	4 $\frac{1}{2}$	4	11	0
0	0	10	0	6	8	0	11	8	4	13	4
0	0	10 $\frac{1}{4}$	0	6	10	0	11	11 $\frac{1}{2}$	4	15	8
0	0	10 $\frac{1}{2}$	0	7	0	0	12	3	4	18	0
0	0	10 $\frac{3}{4}$	0	7	2	0	12	6 $\frac{1}{2}$	5	0	4
0	0	11	0	7	4	0	12	10	5	2	8
0	0	11 $\frac{1}{4}$	0	7	6	0	13	1 $\frac{1}{2}$	5	5	0
0	0	11 $\frac{1}{2}$	0	7	8	0	13	5	5	7	4
0	0	11 $\frac{3}{4}$	0	7	10	0	13	8 $\frac{1}{2}$	5	9	8
0	1	0	0	8	0	0	14	0	5	12	0

## TABLE OF ALIQUOT PARTS.

An aliquot part is such a part of any amount as can be made to produce that amount by multiplying the part by a whole number, thus 1s. 8d. is an aliquot part of a £ because 1s. 8d.  $\times$  12 = 20s. or £1.

### ALIQUOT PARTS OF A PENNY.

	DEC.
$\frac{1}{2}$ the fourth .....	= .25
$\frac{1}{3}$ the half .....	= .5

### ALIQUOT PARTS OF A SHILLING.

d.		
6	the half .....	= .5
4	.. third .....	= .3333
3	.. fourth .....	= .25
2	.. sixth .....	= .16666
1 $\frac{1}{2}$	.. eighth .....	= .125
1	.. twelfth .....	= .08333
$\frac{3}{4}$	.. sixteenth .....	= .0625
$\frac{2}{5}$	.. twenty-fourth .....	= .041666
$\frac{1}{5}$	.. forty-eighth .....	= .0208333

### ALIQUOT PARTS OF A POUND.

s.	d.		
10	0	the half .....	= .5
6	8	.. third .....	= .3333
5	0	.. fourth .....	= .25
4	0	.. fifth .....	= .2
3	4	.. sixth .....	= .16666
2	6	.. eighth .....	= .125
2	0	.. tenth .....	= .1
1	8	.. twelfth .....	= .08333
1	4	.. sixteenth .....	= .06666
1	3	.. sixteenth .....	= .0625
1	0	.. twentieth .....	= .05
0	10	.. twenty-fourth .....	= .041666
0	8	.. thirtieth .....	= .03333
0	7 $\frac{1}{2}$	.. thirty-secondth .....	= .03125
0	6	.. fortieth .....	= .025
0	5	.. forty-eighth .....	= .020833
0	4	.. sixtieth .....	= .016666
0	3 $\frac{1}{2}$	.. sixty-fourth .....	= .015625

### ALIQUOT PARTS OF A POUND AVOIRDUPOIS.

oz.	DECIMAL.
8 the half .....	= .5
4 .. fourth .....	= .25
2 .. eighth .....	= .125
1 .. sixteenth .....	= .0625

### ALIQUOT PARTS OF A QUARTER OF A HUNDRED WEIGHT.

lb.		
14	the half .....	= .5
7	.. fourth .....	= .25
4	.. seventh .....	= .14285
3 $\frac{1}{2}$	.. eighth .....	= .125
2	.. fourteenth .....	= .071428
1	.. twenty-eighth .....	= .035714

### ALIQUOT PARTS OF A HUNDRED WEIGHT.

qr.	lb.		
2 or 56	the half	.....	= .5
1	28	fourth	..... = .25
	16	seventh	..... = .14285
	14	eighth	..... = .125
	8	fourteenth	..... = .071428
	7	sixteenth	..... = .3625
	4	twenty-eighth	..... = .035714
	3 $\frac{1}{2}$	thirty-secondth	..... = .031250

### ALIQUOT PARTS OF A TON.

cwt.		
10	the half .....	= .5
5	.. fourth .....	= .25
4	.. fifth .....	= .2
2 $\frac{1}{2}$	.. eighth .....	= .125
2	.. tenth .....	= .1
1	.. twentieth .....	= .05

## A TABLE

SHOWING THE RATE PER CENT. WHICH IS EQUIVALENT TO ANY GIVEN VARIATION IN PRICE.

1-100th part added to or subtracted from a given price	per cent.	1-7th part added to or subtracted from a given price	per cent.
1-50th .....	= 1	1-6th .....	= 14 $\frac{2}{3}$
1-25th .....	= 2	1-5th .....	= 16 $\frac{2}{3}$
1-20th .....	= 4	1-4th .....	= 20
1-16th .....	= 5	1-3th .....	= 25
1-12th .....	= 6 $\frac{1}{2}$	1-half .....	= 50
1-10th .....	= 7 $\frac{1}{2}$	3-4th .....	= 75
1-8th .....	= 8 $\frac{1}{3}$	price doubled .....	= 100
1-6th .....	= 10	" trebled .....	= 200
	= 12 $\frac{1}{2}$	" quadrupled .....	= 300

## TABLE OF DISCOUNT.

$2\frac{1}{2}$ per Cent. is .....	s.	d.	12 $\frac{1}{2}$ per Cent. is .....	s.	d.
3 .....	0	7 $\frac{1}{2}$	15 .....	3	0
4 .....	0	9 $\frac{1}{2}$	17 $\frac{1}{2}$ .....	3	6
5 .....	1	0	20 .....	4	0
6 .....	1	2 $\frac{1}{2}$	22 $\frac{1}{2}$ .....	4	6
7 $\frac{1}{2}$ .....	1	6	25 .....	5	0
10 .....	2	0	30 .....	6	0

# VARIOUS MEMORANDA CONNECTED WITH WEIGHTS AND MEASURES.

A cubic inch of distilled water at 62° Fah. weighs 252.458 grs.  
 Ditto of mercury ..... 3425.35  
 100 cubic inches of air, barometer 30", thermometer 32°,  
 = 32.795 grains.—(Brassor Rep.)  
 Water (distilled) is 820 times the weight of atmospheric  
 air, the barometer being at 30", and the thermometer at  
 60°.  
 An imperial gallon of distilled water weighs 10lb. avoi-  
 dupois.  
 An imperial gallon = 277.274 cubic inches.  
 Corn bushel. .... = 8 times the above.  
 N.B. (A *striked* bushel : a *heaped* bushel :: 3 : 4).  
 A cubic foot contains 6'232 gallons.  
 A chaldron of coals in London = 36 bushels, and weighs  
 3136 lb. avoirdupois, or nearly 1 ton, 8 cwt.

To convert the old measures into the new imperial :—

For Corn multiply by  $\frac{8}{7}$   
 For Wine "  $\frac{6}{5}$   
 For Ale "  $\frac{8}{7}$   
 1 Chain = 22 yards = 4 lugs = 100 links in length.  
 (50 links = 33 feet).  
 10 Square chains, or 160 square lugs = 1 acre = 4840 sq. yds.  
 640 Acres = 1 square mile.  
 N.B. The lug, rod, pole, and perch are alike = 16½ feet.  
 7000 Grains = 1 lb. avoirdupois.  
 5760 Grains = 1 lb. Troy.  
 41 Ounces Troy = 45 ounces avoirdupois.  
 The seconds' pendulum vibrating at Greenwich is  
 39.12929 inches in length.  
 N 2 : 602 : 39.129 : length (n = vibrations second).

## A CATALOGUE OF USEFUL THINGS.

A ream of paper contains 20 quires.  
 A quire of paper 24 sheets.  
 A bale of paper, 10 reams.  
 A roll of parchment or vellum, 5 dozen, or 60 skins.  
 A dicker of hides, 10 skins.  
 Ditto of gloves, 10 dozen pair.  
 A last of hides, 20 dickers.  
 A chaldron of coals, 36 bushels.  
 Standard gallon contains 10 lb. avoirdupois of distilled  
 water.  
 A hogshead of wine, 63 gallons.  
 Ditto of beer, 54 gallons.  
 A barrel of beer, 36 gallons.  
 Ditto of ale, 32 gallons.  
 A weigh of cheese, 236 lb.  
 The hundred weight is 112 lb.  
 Pence in a pound, 240.  
 Farthings in a pound, 960.  
 8 Pints, dry or liquid measure, a gallon.  
 8 Gallons, a bushel of corn.  
 8 bushels of corn, a quarter.  
 A last of corn or rape-seed, 10 quarters or 80 bushels.  
 Ditto of Potashes, cod-fish, white herrings, meal, pitch,  
 and tar, 12 barrels.  
 Ditto of flax and feathers, 17 cwt.; of gunpowder, 24 bar-  
 rels, or 2400 lbs.; of wool, 4568 lbs.  
 An ell English is 45 inches.  
 Ditto Flemish, 27 inches.  
 A tun of wine, 252 gallons; oil of Greenland, ditto.  
 A ton in weight is 20 cwt. of iron, &c., but in lead there  
 is but 19 cwt. and a half, called a fother, which is 2184 lb.  
 A tod of wool is 28 pounds.  
 A pack of ditto, 364 pounds.  
 5½ Yards, a pole.  
 40 poles in length, a furlong.  
 8 Furlongs in length, a mile.  
 1760 yards a mile.

144 Square inches, a foot.  
 9 Square feet, a yard.  
 40 Square poles, a rood.  
 4 Square roods, an acre.  
 4840 Square yards, an acre.  
 640 Square acres, a mile.  
 1728 Solid inches a foot  
 27 Solid feet, a yard.  
 48 Solid feet of timber, a ton.  
 11 lb. avoirdupois is equal to 7000 grains, troy.  
 1 oz. avoirdupois is equal to 437 and a half grains, troy  
 4 lb. avoirdupois is equal to 5 lb. troy nearly.  
 A firkin of butter, 56 lb.  
 A pipe or butt is 120 gallons.  
 A quintal or kintal, 1 cwt.  
 A load of bricks, 500, and plain tiles, 1000.  
 A stone of fish, 14 lb., and of wool, 14 lb. The same for  
 horseman's weight, hay, iron, shot, &c.  
 A stone of glass, 5 lb., and a seam of ditto, 24 stone  
 A cade of red herrings, 500, and sprats, 1000.  
 A load of timber unhewed, 40 feet.  
 A pocket of hops, average weight about 1½ cwt. to 2 cwt.  
 A bag of hops, nearly 3½ cwt.  
 A ton contains 42 cubic feet.  
 Beer or Ale, barrel. .... imperial gallon 36  
 hogshead ..... 54  
 1 Butt of Sherry. .... gallon 180  
 Flour, peck or stone. .... lb. 14  
 boll of 10 pecks or stones ..... 140  
 sack of 2 bolls ..... 280  
 barrel ..... 196  
 Hay or straw, load ..... trusses 36  
 truss ..... lb. 56  
 new, to Sep. 1 ..... 60  
 Straw, truss ..... 36  
 1 Hogshead of claret ..... gallons 58

## COMMERCIAL NUMBERS.

12 Articles ..... 1 Dozen.	80 Deals ..... 1 Quarter.	21½ Quires ..... 1 Printer's Ream.
18 Ditto ..... 1 Long dozen.	4 Quarters ..... 1 Hundred.	2 Reams ..... 1 Bundle.
12 Dozen ..... 1 Gross.	24 Sheets of Paper ..... 1 Quire.	10 Ditto ..... 1 Bale.
20 Articles ..... 1 Score.	20 Ditto ..... 1 Ditto outsides.	5 Dozen skins of
5 Score ..... 1 Common hundred.	25 Ditto ..... 1 Printer's ditto.	parchment ..... 1 Roll.
6 Score ..... 1 Great hundred.	20 Quires ..... 1 Ream.	

90 words in Chancery, 80 ditto in Exchequer, or 72 ditto in Common Law, one folio.

## PAGES, LEAVES, SHEET.

Folio Books are the largest, of which 4 or 2 make 1  
 Quarto, or 4to ..... 8 " 4 " 1  
 Octavo, or 8vo ..... 16 " 8 " 1  
 Duodecimo, or 12mo ..... 24 " 12 " 1  
 Octodecimo, or 18mo ..... 36 " 18 " 1  
 Oranges, lemons, corks, and a few other articles are  
 often sold by the gross; nails, tacks, &c., have six score  
 to the hundred.  
 Sheet lead is from 6 lb. to 10 lb. to the square foot. A  
 pipe of an inch bore is commonly 13 lb. or 14 lb. to the  
 yard in length.

A solid yard of well wrought clay will make 460 bricks.  
 Thirty-two common bricks will cover a square yard. A  
 common brick must not be more than 9 inches long, 4½  
 inches wide, and 2½ inches thick.  
 Plain tiles should be 10½ inches long, 6½ inches wide,  
 and ½ inch thick.  
 An imperial gallon of seal or whale oil should weigh  
 9 lb.; spermaceti, 8 lb.; which test of quantity all consu-  
 mers are recommended to employ, as many use the old  
 measure, which is 1-5th less.  
 The log-line used in the navy is 48 feet long.

## SIZES OF DRAWING PAPER.

	ft. in.	ft. in.		ft. in.	ft. in.		ft. in.	ft. in.
Wove Antique	4	4 by 0 27	Elephant	0 27	by 0 23	Royal	0 24	by 0 19
Double Elephant	0 40	" 0 26	Imperial	0 31	" 0 21	Medium	0 22	" 0 17
Atlas	0 33	" 0 26	Super Royal	0 27	" 0 19	Demy	0 20	" 0 15
Columbier	0 34	" 0 23						

## SUNDRY USEFUL TABLES AND STATISTICS.

### VIEW OF THE VARIOUS CANALS IN SCOTLAND.

	Length in Miles.	Width at surf. in feet.	Depth.	Summit level.	No. of Locks.	Date of Act.	When complet- ed.
Forth and Clyde .....	35	56	10	156	39	1768	1790
Monkland .....	12	35	6	113	10	1770	..
Criman .....	9	..	12	62	15	1793	1801
Aberdeenshire .....	18½	23	3½	168	17	1796	1807
Caledonian .....	60½	120	15	95	28	1803	1822
Glasgow, Paisley, and Ardrossan ....	11	28	4½	level	none	1806	1811
Edinburgh and Glasgow Union .....	31½	40	5	110	11	1817	1822

### LENGTH OF RIVERS.

The numerous rivers of the earth may be divided into classes, according to their length. 1st class: The Amazon, of South America, is the first river in the world, considering its length and great size. It is 3300 miles long, 180 miles wide at its mouth, and is navigable 3000 miles for large ships. The Mississippi, of the United States, is an example of the first class of rivers, but is only navigable 900 miles for ships. 2d class: The Nile of Africa, and the Volga of Europe, are from 2000 to 3000 miles long, and are examples of the second class. The La Plata, of Paraguay, is of this class; it is 150 miles broad at its mouth, and is navigable 1000 miles for ships. 3d class: The Orinoco, of South America, is the largest of the third class; it is 30 miles wide at its mouth, and is navigable 700 miles. The Danube is an example in Europe.

### PRINCIPAL RIVERS IN EUROPE.

Length in Miles	Length in Miles	Length in Miles	Length in Miles
Volga .. .. 2040	Elbe .. .. 670	Douro .. .. 455	Severn .. .. 210
Danube .. .. 1800	Vistula .. .. 650	Seine .. .. 450	Tiber .. .. 210
Dnieper .. .. 1160	Loire .. .. 620	Po .. .. 410	Shannon .. .. 200
Don .. .. 1020	Oder .. .. 580	Ebro .. .. 400	Humber .. .. 160
Rhine .. .. 830	Tagus .. .. 550	Garonne .. .. 400	Tay .. .. 120
Dwina .. .. 760	Rhone .. .. 540	Guadalquivir .. .. 300	Forth .. .. 115
Dniester .. .. 700	Guadiana .. .. 460	Thames .. .. 210	Clyde .. .. 100

### LENGTH OF BRIDGES.

Feet.	Feet.	Feet.
Trajan's Bridge, near Vidin, Bulgaria .. .. 10000	Mentz, do. Germany .. .. 2100	Waterloo, stone .. .. 1223
Nantes, succession of wooden bridges .. .. 9600	Wexford, wood .. .. 2080	Westminster, do. .. .. 1223
Washington, Potomac .. .. 5300	Zamora, Douro .. .. 1940	Berwick, do. .. .. 1164
Philadelphia, Delaware .. .. 5000	Alcantara, stone, Tagus .. .. 1920	Londonderry, wood .. .. 1068
Kliew, wood, Russia .. .. 4800	Badajoz, do. Spain .. .. 1874	Ratisbone, stone, Bavaria .. .. 1050
Boston, do. United States .. 3483	Saumur, stone, France .. .. 1730	Menai, Wales, chain .. .. 1050
Strasbourg, do. France .. .. 3390	Avignon, Rhone, do. .. .. 1710	Pont Neuf, Paris .. .. 996
Pont St. Esprit, do. .. .. 3060	Bordeaux, stone, Garonne .. 1620	Blackfriars, stone .. .. 995
Buda, boats, Hungary .. .. 3050	Manheim, stone, Germany .. 1650	London do. .. .. 950
Thorn, wood, Prussia .. .. 3000	Presburg, boats, Hungary .. 1650	Vauxhall, iron .. .. 860
Riga, do. Russia .. .. 2600	Lyons, stone, France .. .. 1560	Berwick, chain .. .. 804
Washington, east, br. .. .. 2500	Rouen, boats, do. .. .. 1550	Southwark, iron .. .. 708
Belfast, wood, Ireland .. .. 2500	Boston, United States .. .. 1503	Span of Menai Cen. Ch. Br. .. 550
Dresden, stone .. .. 2480	Salem, do. .. .. 1500	Span of Berwick do. .. .. 437
Wittenburg, Prus. Sax. .. .. 2450	Warsaw, wood .. .. 1500	Central Arch of Meissen bridge, Saxony .. .. 375
Cologne, boats .. .. 2330	Lintz, wood, Austria .. .. 1470	Arch of Schuylkill bridge, Philadelphia .. .. 340
Seville, do. Spain .. .. 2310	Frankfort .. .. 1460	Central Arch, Southwark .. .. 240
Tortosa, do. do. .. .. 2290	Tours, stone, France .. .. 1400	Sunderland, iron .. .. 236
	Limerick, Shannon .. .. 1340	
	Cremona, boats, Italy .. .. 1300	

# THE ROYAL NAVY, JANUARY, 1843.

	In commis- sion.	In Ord- nary.	Building.	Total.
First Class .. 120 to 104 Guns .....	8	13	4	25
Second „ .. 92 „ 80 „ .....	6	15	11	32
Third „ .. 78 „ 70 „ .....	9	35	—	44
<b>FRIGATES.</b>				
First Class .. 50 Guns .....	6	10	3	19
Second „ .. 46 to 36 „ .....	11	46	6	63
<b>CORVETTES, &amp;c.</b>				
26 to 24 Guns .....	16	5	5	26
20 „ 10 „ .....	51	16	10	77
under 10 „ .....	50	28	6	84
Steam Vessels.....	67	21	16	104
	224	189	61	474
Receiving Ships, Dock Yard Craft, Convict Ships, &c	..	..	..	196
Total Number of Ships belonging to the Royal Navy	..	..	..	670

## PACKET AND REVENUE SERVICE.

At Falmouth.....	7 Vessels.
„ Dover .....	6 „
„ Weymouth .....	3 „
„ Port Patrick .....	2 „
„ Pembroke .....	5 „
„ Liverpool .....	5 „
„ Holyhead.....	4 „
	32
Number of Revenue Vessels.....	42
	74

## NUMBER OF SEAMEN, BOYS, AND MARINES EMPLOYED IN THE ROYAL NAVY.

Number of Men voted .....	\$0,600	Actually borne .....	32,084
„ Boys voted .....	2,000	„ .....	2,000
„ Marines .....	10,600	„ .....	9,971
Total.....			44,005

## EXPENSE.

Effective .....	£4,618,917
Non-effective, Half-pay, Superannuations, &c.....	1,890,968
Army, Ordnance and Home Department .....	729,448
Navy Estimates for 1842-1843. Total.....	£6,739,318

## DOCKS.

	No. of Shares.	Amount of Share.	Paid up per Share.	Capital paid up.	Dividend per cent.
Commercial .....	.. ..	stock	£ s.	£8,184,000	£8 0 0
East and West India .....	.. ..	stock	.. ..	2,003,334	5 0 0
East Country .....	1,088	£ 100 0	.. ..	103,800	
London .....	.. ..	stock	.. ..	3,238,310	3 5 0
Ditto Bonds .....	.. ..	.. ..	.. ..	700,000	4 0 0
Bristol .....	2,209	147 9	.. ..	325,717	3 10 0
Ditto Bonds, various amounts .....	.. ..	.. ..	.. ..	68,324	5 0 0
St. Katharine.....	.. ..	stock	.. ..	1,352,752	5 0 0
Ditto Bonds .....	.. ..	.. ..	.. ..	500,000	4 10 0
Ditto Bonds .....	.. ..	.. ..	.. ..	200,000	4 0 0
Southampton .....	7,000	50 0	43 0	301,000	4 0 0
London Steam .....	.. ..	stock	.. ..	100,000	4 0 0
Ditto Scrip.....	.. ..	.. ..	10 0	50,000	

# STATEMENT

OF THE SHIPPING EMPLOYED IN THE TRADE OF THE UNITED KINGDOM, WITH EACH FOREIGN COUNTRY AND BRITISH POSSESSION, AT THE SEVERAL PERIODS UNDERMENTIONED, FROM 1800 TO 1841, &c.

## TOTAL TRADE WITH ALL COUNTRIES.

Yrs.	INWARDS.						OUTWARDS.					
	BRITISH.		FOREIGN.		TOTAL.		BRITISH.		FOREIGN.		TOTAL.	
	Ships.	Tons.	Ships.	Tons.	Ships.	Tons.	Ships.	Tons.	Ships.	Tons.	Ships.	Tons.
1800	8,571	1,205,567	5,010	704,697	13,581	1,910,264	9,777	1,269,329	4,658	654,713	14,435	1,924,042
1810	10,467	1,346,990	6,199	1,070,080	16,666	2,417,070	10,159	1,369,696	6,210	1,073,636	16,369	2,443,331
1820	18,586	2,270,406	3,258	408,401	21,844	2,678,801	18,177	2,207,663	2,739	390,991	20,916	2,598,651
1830	13,648	2,180,042	6,359	758,828	18,907	2,938,870	12,747	2,102,147	5,153	758,368	17,905	2,860,515
1831	14,488	2,367,322	6,085	874,605	20,573	3,241,927	13,791	2,300,731	5,927	896,051	19,718	3,196,782
1832	13,372	2,185,980	4,546	639,979	17,918	2,825,959	13,292	2,229,269	4,391	651,223	17,683	2,880,492
1833	13,119	2,183,814	5,505	762,086	18,624	2,945,899	13,266	2,244,374	5,250	758,601	18,516	3,002,975
1834	13,903	2,298,263	5,894	833,905	19,797	3,132,168	13,639	2,296,325	5,823	852,827	19,462	3,149,152
1835	14,295	2,442,734	6,005	866,990	20,300	3,309,724	13,948	2,419,941	6,047	905,270	19,995	3,325,211
1836	14,347	2,505,473	7,131	988,899	21,478	3,494,372	14,207	2,531,677	7,048	1,035,120	21,255	3,566,697
1837	15,155	2,616,166	7,343	1,005,940	22,498	3,622,106	14,567	2,547,227	7,461	1,036,738	22,028	3,583,965
1838	16,119	2,785,387	8,679	1,211,666	24,798	3,997,053	15,907	2,876,236	8,520	1,222,803	24,427	4,099,039
1839	17,635	3,101,650	10,326	1,331,365	27,961	4,433,015	17,066	3,096,611	10,698	1,398,096	27,764	4,494,707
1840	17,883	3,197,501	10,198	1,460,294	28,081	4,657,795	17,633	3,292,984	10,440	1,488,888	28,073	4,781,872
1841	18,526	3,361,311	9,527	1,291,165	28,052	4,652,376	18,464	3,429,276	9,786	1,336,892	28,250	4,766,171

## SHIPPING.

AN ACCOUNT OF THE COMPARATIVE NUMBER OF VESSELS WHICH ENTERED INWARDS AND CLEARED OUTWARDS, WITH CARGOES, AT THE SEVERAL PORTS OF THE UNITED KINGDOM, IN THE YEARS ENDING JANUARY 5TH, 1842 AND 1843.

### FOREIGN TRADE.

Entered Inwards in 1842	21,858 Ships	3,982,129 Tons.
" 1843	19,675 "	3,655,606 "
Decrease	2,183 Ships	326,523 Tons.
Cleared Outwards in 1842	20,861 Ships	3,543,456 Tons.
" 1843	21,403 "	3,691,664 "
Increase	542 Ships	148,208 Tons.

### COASTING TRADE.

Entered Inwards in 1842	131,321 Ships	10,869,071 Tons.
" 1843	127,840 "	10,785,450 "
Decrease	3,481 Ships	83,621 Tons.
Cleared Outwards in 1842	143,877 Ships	11,650,252 Tons.
" 1843	141,010 "	11,302,657 "
Decrease	2,867 Ships	347,595 Tons.

## BRIDGES.

	Number of Shares.	Amount of Share.	Paid up per Share	Capital paid up.	Dividend per cent.
Hammersmith	1,600	£50 0 0	£	£80,000	£1 0 0
Southwark, with new Subscription	7,231	63 2 8	....	456,517	....
Ditto New of 7½ per cent.	1,700	50 0 0	....	85,000	1 10 0
Waterloo	5,000	100 0 0	....	500,000	....
Ditto Old Annuities of £8	5,000	....	60	300,000	1 4 0
Ditto New Annuities of £7	5,000	....	40	200,000	1 1 0
Ditto Bonds	....	....	....	60,000	5 0 0
Vauxhall	5,848	70 10 3	....	412,357	1 7 0
Hungerford and Lambeth Suspension	3,200	25 0 0	13	30,000	1 12 0

# CANALS in 1842.

The Amounts marked thus (\*) denote the Average Amount paid on the several Shares.

	Number of Shares.	Amount of Share.		CAPITAL.		Dividend per Ann. per cent.	
		£	s. d.	£	s. d.	£	s. d.
Ashton and Oldham .. .. .	1,768	97	18 0	186,326	0 0	6	0 0
Ashby-de-la-Zouch .. .. .	1,482	113	0 0	167,466	0 0	4	0 0
Barnsley .. .. .	720	160	0 0	115,200	0 0	14	0 0
Basingstoke .. .. .	1,260	100	0 0	126,000	0 0	.....	
Brecknock and Abergavenny .. .. .	1,005	160	0 0	150,760	0 0	5	10 0
Birmingham, 1-16th share .. .. .	8,000	79	16 0	638,000	0 0	10	0 0
Ditto and Liverpool Junction .. .. .	4,000	100	0 0	400,000	0 0	.....	
Chelmer and Blackwater .. .. .	400	100	0 0	40,000	0 0	5	6 0
Coventry .. .. .	500	100	0 0	90,000	0 0	20	0 0
Cromford .. .. .	460	100	0 0	46,000	0 0	24	0 0
Dudley .. .. .	2,060 $\frac{1}{2}$	100	0 0	206,075	0 0	5	0 0
Derby .. .. .	600	150	0 0	90,000	0 0	9	0 0
Danube and Mayne .. .. .	20,000	41	13 4	833,333	6 8	4	0 0
Ellesmere and Chester .. .. .	3,575	*133	0 0	475,574	15 0	4	0 0
Erewash .. .. .	231	100	0 0	23,100	0 0	62	0 0
Forth and Clyde .. .. .	6,485	*100	0 0	648,500	0 0	8	15 0
Grand Junction .. .. .	11,600	100	0 0	1,160,000	0 0	7	0 0
Grand Union .. .. .	2,849	100	0 0	284,950	0 0	1	15 0
Grand Surrey .. .. .	1,500	100	0 0	150,000	0 0	.....	
Grand Western .. .. .	3,096	100	0 0	309,600	0 0	.....	
Glamorganshire .. .. .	600	*172	13 4	103,600	0 0	13	12 8
Gloucester and Berkeley .. .. .	5,000	100	0 0	500,000	0 0	.....	
Grantham .. .. .	749	150	0 0	112,350	0 0	12	0 0
Huddersfield .. .. .	6,238	*57	6 6	357,593	7 0	2	0 0
Kennet and Avon .. .. .	25,328	*39	18 10	1,011,642	10 8	1	10 0
Lancaster .. .. .	11,699	*47	6 8	570,144	0 0	1	10 0
Leeds and Liverpool .. .. .	2,883	100	0 0	422,136	0 0	34	0 0
Leicester .. .. .	645	140	0 0	76,150	0 0	11	0 0
Leicester and Northampton .. .. .	19,107	*83	10 0	167,167	0 0	2	10 0
Loughborough .. .. .	70	*142	17 0	9,999	10 0	84	0 0
Monmouthshire .. .. .	2,409	100	0 0	240,900	0 0	10	0 0
Montgomeryshire .. .. .	700	100	0 0	70,000	0 0	4	10 0
Melton Mowbray .. .. .	250	100	0 0	25,000	0 0	10	0 0
Mersey and Irwell .. .. .	500	.....		50,000	0 0	25	0 0
Macclesfield .. .. .	2,814	100	0 0	350,000	0 0	1	10 0
Neath .. .. .	247	100	0 0	24,700	0 0	20	0 0
Oxford .. .. .	1,786	100	0 0	178,600	0 0	30	0 0
Peak Forest .. .. .	2,400	*78	0 0	263,652	0 0	4	0 0
Regent's (or London) .. .. .	21,418	*33	16 8	724,642	0 0	0	5 6
Rochdale .. .. .	5,669	*85	0 0	481,865	0 0	5	0 0
Shropshire .. .. .	500	125	0 0	62,500	0 0	8	0 0
Somerset Coal .. .. .	800	150	0 0	120,000	0 0	8	6 8
Ditto Lock Fund Stock .. .. .	3,600	12	10 0	45,000	0 0	6	0 0
Stafford and Worcester .. .. .	700	100	0 0	70,000	0 0	36	0 0
Shrewsbury .. .. .	500	125	0 0	62,500	0 0	15	0 0
Stourbridge .. .. .	300	145	0 0	43,500	0 0	20	0 0
Stratford-on-Avon .. .. .	3,611	*79	9 8	332,014	0 0	2	0 0
Stroudwater .. .. .	200	150	0 0	30,000	0 0	26	0 0
Swansea .. .. .	533	100	0 0	53,300	0 0	15	0 0
Severn and Wye and Railway .. .. .	3,762	*26	9 3	99,551	18 6	2	12 0
Thames and Severn, Black .. .. .	1,300	100	0 0	130,000	0 0	2	0 0
"    "    Red .. .. .	1,150	100	0 0	115,000	0 0	2	0 0
Trent and Mersey, quarter share .. .. .	2,600	50	0 0	130,012	10 0	32	10 0
Thames and Medway .. .. .	8,001	*19	5 8	285,439	17 8	.....	
Warwick and Birmingham .. .. .	2,000 $\frac{1}{2}$	*100	0 0	.....		14	10 0
Warwick and Napton .. .. .	980	100	0 0	98,000	0 0	10	0 0
Worcester and Birmingham .. .. .	6,000	*78	8 0	470,400	0 0	4	0 0
Wilts and Berks .. .. .	5,000	*67	10 8	337,666	13 4	1	16 0
Wisbeach .. .. .	126	105	6 0	13,230	0 0	.....	
Wey and Arun .. .. .	905	110	0 0	99,550	0 0	1	0 0

Total, 59 Canals, in which is embarked Capital amounting to £14,362,445.—Producing annually £974,829, or, on an average of the whole, 6 $\frac{1}{2}$  per cent.

There is also about £3,500,000 expended in Branches and Feeders.

# A LIST,

SHEWING THE RATES FOR CARRIAGE OF GOODS ON THE TWENTY PRINCIPAL LINES OF RAILWAY, AS CHARGED TO THE PUBLIC BY THE RESPECTIVE COMPANIES, IN THE CAPACITY OF CARRIERS ON THEIR OWN LINES, AND AS CHARGED BY "RAILWAY AND CANAL CARRIERS," OR OTHER INTERVENING PARTIES. By B. POOLE, ESQ., 1844.

LENGTH IN MILES.	Name of Railway Companies.	Conveying Goods between	Goods forwarded by	RATES PER TON CHARGED TO THE PUBLIC.*		Cartage.
				£ s. d.	£ s. d.	
118	Great Western .....	London and Bristol .....	The Company ..	0 18 0	to 2 3 0	Exclusive
112	London and Birmingham ..	London and Birmingham ..	Intervening Parties	1 10 0	" 3 10 0	Inclusive
98	Grand Junction .....	Liverpool and Birmingham ..	The Company ..	0 15 0	" 2 0 0	Inclusive
88	South Eastern .....	London and Dover .....	Intervening Parties	0 17 6	" 2 10 0	Inclusive
77	South Western .....	London and Southampton ..	The Company ..	0 19 0	" 1 8 6	Exclusive
72	North Midland .....	Derby and Leeds .....	Intervening Parties	1 5 0	" 2 10 0	Inclusive
61	Newcastle and Carlisle .....	Newcastle and Carlisle .....	The Company ..	0 10 0	" 1 5 0	Inclusive
60	Manchester and Leeds .....	Manchester and Leeds .....	Intervening Parties	1 0 0	" 2 0 0	Inclusive
53	Birmingham and Gloucester.	Birmingham and Gloucester.	The Company ..	0 6 0	" 1 10 0	Inclusive
52	London and Brighton .....	London and Brighton .....	Ditto ..	0 8 6	" 1 5 0	Exclusive
51	Eastern Counties .....	London and Colchester .....	Ditto ..	0 10 0	" 1 10 0	Inclusive
46	Edinburgh and Glasgow .....	Edinburgh and Glasgow .....	Ditto ..	0 5 0	" 10 6	Inclusive
45	Great North of England .....	York and Darlington .....	Intervening Parties	0 15 0	" 1 10 0	Inclusive
42	Birmingham and Derby .....	Birmingham and Derby .....	The Company ..	0 6 0	" 0 15 0	Inclusive
31	Liverpool and Manchester ..	Liverpool and Manchester ..	Ditto ..	0 7 6	" 0 14 0	Inclusive
31	Manchester and Birmingham	Manchester and Crewe .....	Ditto ..	0 6 6	" 0 10 0	Inclusive
22	Glasgow and Greenock .....	Glasgow and Greenock .....	Ditto ..	0 4 0	" 0 10 0	Inclusive
22	North Union .....	Preston and Parkside .....	Intervening Parties	0 10 0	" 1 10 0	Inclusive
20	Lancaster and Preston .....	Lancaster and Preston .....	Ditto ..	0 10 0	" 1 10 0	Inclusive
20	Preston and Wyre .....	Preston and Fleetwood .....	The Company ..	0 3 4	" 0 5 0	Exclusive
1121				12 6 4	29 13 0	

\*The minimum, as for Grain, Iron, Timber, &c., and the maximum, as for Light Goods in general.

## RECAPITULATION.

Thirteen Railway Companies carrying Goods.	Miles.	At an average Rate per Ton.	Seven Railways having other Carriers thereon.	Miles.	At an average Rate per Ton.
		£ s. d.			£ s. d.
Great Western*	118	1 10 6	London and Birmingham .....	112	2 10 0
South Western*	77	1 3 9	South Eastern .....	88	1 13 9
Grand Junction .....	98	1 7 6	North Midland .....	72	1 17 6
Newcastle and Carlisle .....	61	0 17 6	Manchester and Leeds .....	60	1 10 0
Birmingham and Gloucester ..	53	0 18 0	Great North of England .....	45	1 2 6
London and Brighton*	52	0 16 9	North Union .....	22	1 0 0
Eastern Counties*	51	1 0 0	Lancaster and Preston .....	20	1 0 0
Edinburgh and Glasgow .....	46	0 11 3			
Birmingham and Derby .....	42	0 10 6		419	10 13 9
Liverpool and Manchester .....	31	0 10 9			
Manchester and Birmingham ..	31	0 8 3			
Glasgow and Greenock .....	22	0 7 0			
Preston and Wyre .....	20	0 4 2			
* Add 5s. per ton cartage on these lines.	702	10 5 11			

Thus the Public are charged at an average rate of scarcely 4d. per ton per mile by Railway Carrying Companies; whilst they are charged upwards of 8d. per ton per mile by the so called Railway and Canal Carriers, or equal to 34 per cent. extra, which neither benefits the Railway Proprietors nor the Public, but finds its way into the pockets of these intervening parties.

## LIVERPOOL INLAND CARRYING TRADE, DURING 1843.

	Carriers.	Using Cranes.	Loading Flats, &c per Week.	Average Tons Each.	Tons Annually.
Duke's Dock .....	20	49	273	25	354,900
Anderton Basin .....	1	2	12	25	15,600
Railway Termini .....	8	50	.....	.....	252,876
Small River Craft Dock .....	7	6	35	40	72,800
Harrington Dock and Basin ..	2	5	22	40	45,760
Egerton Dock .....	1	4	12	40	24,960
Old Quay Dock .....	4	20	84	25	109,200
South West corner of George's Dock ..	7	13	44	40	222,560
Transhipped in Docks by the Anderton Co., Trustees of the Duke of Bridgewater, Ellesmere & Chester Canal Co., and others. }	.....	.....	84	30	110,000
Clay Flints, Earthenware, Iron, &c. &c. ....	.....	.....	.....	.....	.....
Sundry small Carriers by Waggon, Carts, &c. ....	20	.....	.....	.....	10,400
Leeds and Liverpool Canal .....	5	13	.....	.....	156,000
	75				1,375,056

# LIVERPOOL INLAND CARRYING TRADE,

YEAR ENDING 31st. DECEMBER, 1843.

Received into Liverpool from the Country.	Tons.	Forwarded from Liverpool into the Country.	Tons.
Iron of all sorts .....	110,000	Cotton of all sorts .....	210,000
Nails and Hardware .....	70,000	Grain, Flour, &c. ....	130,000
Earthenware .....	50,000	Timber, Deals, &c. ....	105,000
Timber (round) .....	3,000	Clay, Flints, &c. ....	70,000
Machinery .....	12,000	Iron Ore at Runcorn .....	20,000
Castings .....	15,000	Dyewoods .....	15,000
Lead and Metals .....	4,000	Drysalteries .....	20,000
Ale (from Burton) .....	6,000	Palm Oil, Tallow, Rosin, &c. ....	16,000
Malt, Flour, and Grain .....	5,000	Brimstone .....	8,000
Stourbridge Bricks .....	8,000	Wool .....	15,000
Tin Plates .....	6,000	Sugar and Molasses .....	13,000
Quicksilver, &c. &c. ....	1,000	Butter, Provisions, &c. ....	20,000
Sugar, Tobacco, Coffee, &c. ....	1,000	Lead and Foreign Iron .....	6,000
Flint and Crown Glass .....	2,000	Porter Irish, &c. ....	4,000
Cotton Twist and Yarn .....	10,000	Fish and Eggs .....	5,000
Bales and Cases.—Cottons, Woollens, Silks, } Threads, and General Merchandize .....	150,000	Bales and Cases.—Linen, Cottons, Irish and } Scotch Goods, and General Merchandize ..	80,000
Fruit (ripe) and Vegetables .....	3,000	Tea and Coffee .....	4,000
Flags, from Yorkshire, &c. ....	45,000	Wines and Spirits .....	5,000
Indigo, Cochineal, Tea, Wines, Spirits, } Cowries, &c., from London for exportation ..	1,000	Sundries .....	90,000
Sundries too numerous to analyze .....	40,000	Imports .....	836,000
	542,000	Exports .....	542,000
		Total .....	1,378,000

# SALT EXPORTED FROM LIVERPOOL,

YEAR ENDING 31st, DECEMBER, 1843.

	TONS.		Exported in 1842.
To the Baltic, namely—			
.. Denmark .....	6,475½		
.. Norway and Sweden .....	7,326		
.. Russia .....	41,899		
.. Prussia .....	27,932½		
.. Mecklenburgh .....	3,293		
.. Lubec, Hamburgh, &c. ....	3,473½		
To Holland .....	9,576	90,399½	81,545
.. Belgium .....	17,164½		
To United States .....	130,528½	26,740½	47,313
.. British North America .....	37,055½		
To Africa .....	10,315½	167,584½	*118,919½
To Other Foreign Ports of the World .....	....	10,315½	7,961½
.. England .....	46,954	2,748½	3,996
.. Ireland .....	70,789½		
.. Scotland .....	44,863½		
To Isles of Jersey, Guernsey, and Man .....	....	162,607	
		2,444½	124,496½
Total .....		462,840	384,231½
93,887 United States.			
25,032½ Canadas.			
*118,919½			

# RULE FOR ASCERTAINING THE WEIGHT OF CATTLE.

Measure the girth close behind the shoulder, and the length from the fore part of the shoulder-blade along the back to the bone at the tail, which is in a verticle line with the buttock, both in feet. Multiply the square of the girth, expressed in feet, by five times the length, and divide the product by 21; the quotient is the weight, nearly, of the four quarters in imperial stones of 14lbs. avoirdupois. For example, if the girth be 6½ feet, and the length 5½ feet, we shall have 6½ × 6½ = 42¼, and 5½ × 5 = 26½; then 42¼ × 26½ = 1109 1-16th, and this divided by 21, gives 54 4-5ths stones nearly, or 52 stones 11lbs. It is to be observed, however, that in very fat cattle the four quarters will be about one-twentieth less, than the weight obtained by the rule. The four quarters are little more than half the weight of the living animal; the skin weighing about the eighteenth part, and the tallow about the twelfth part of the whole.

## SHEEP AND LAMB'S WOOL

IMPORTED INTO THE UNITED KINGDOM IN 1843.—(Parl. Pap. 1844.)

From	LBS.	From	LBS.	From	LBS.
Russia	3,511,916	Turkey (includ. Syria)	508,205	Texas	148
Norway	10,867	Morocco	81,788	Mexico	2,004
Denmark	645,355	Cape of Good Hope	1,728,453	Columbia	31
Prussia	132,317	St. Helena	8,871	Brazil	28,152
Germany	16,805,448	Mauritius	37,983	States of the Rio de la Plata	1,579,653
Holland	53,710	East Ind. Co.'s Territ.	1,916,129	Chili	112,541
Belgium	277,022	New South Wales	11,942,605	Peru	1,115,192
France	2,742	Van Diemen's Land	3,993,040		
Portugal	475,423	Swan River Settlement	110,621		
Spain	597,091	South Australia	1,387,514		
Gibraltar	5,663	Brit. N. Amer. Colon.	13,125		
Italy	231,113	British West Indies	12,807		
Malta	20,728	United S. of America	136,608		
				Total pounds	47,785,061
				Llama, or alpaca wool	1,458,032
				Mohair, or goats wool	575,328

By Act of Victoria 7 and 8, chap. 16, the duties on importation of sheep or lamb's wool, and goat's wool, or hair; also on the exportation of wools and skins; mattresses or beds stuffed with combed wool, or wool fit for combing, are repealed.

### QUANTITIES OF WOOL

Imported into the United Kingdom, from all parts.

(Parl. Pap. 1844.)

Years.	Produce of British Possessions.	Produce of Foreign Countries.	Total.
	LBS.	LBS.	LBS.
1816	29,563	7,487,313	7,516,876
1822	198,815	18,859,265	19,058,080
1828	1,603,819	28,632,240	30,236,059
1834	3,770,985	42,684,247	46,455,232
1835	4,702,356	37,472,176	42,174,532
1836	6,422,484	57,817,493	64,239,977
1837	9,429,762	38,949,946	48,379,708
1838	10,167,482	42,426,873	52,594,355
1839	12,872,421	44,507,502	57,379,923
1840	12,850,762	36,585,522	49,436,284
1841	16,328,714	39,342,260	55,670,974
1842	18,467,212	27,414,427	45,881,639
1843	21,132,352	28,110,741	49,243,093

### BRITISH WOOL,

Exported from the United Kingdom, in lbs.

(Parl. Paper, 1844.)

1826	143,130	1838	5,851,340
1828	1,669,389	1840	4,810,387
1830	3,494,275	1841	8,471,235
1832	4,199,825	1842	8,578,691
1834	2,278,721	1843	8,179,639
1836	3,942,407		

### SALT MEAT,

Imported in the Half Year ending January 5th, 1844.

(Parl. Paper.)

	Retained for Home Consump.	Exported.	Taken for Ship's Stores.
	CWT.	CWT.	CWT.
Salted Beef	35,219	1,442	3,201
Salted Pork	10,023	3,175	13,556
Hams (various)	2,560	1,574	617
Bacon	598	568	16
			0

### AN ACCOUNT OF THE DUTY ON HOPS

Of the Growth of the year 1844, distinguishing the districts, and the old from the new duty.

	£	s.	d.		£	s.	d.
Old Duty at 1d. 12-20ths per lb.	140,322	17	24	12-20ths.			
New Duty at 38-420ths per lb.	103,716	17	11	8-20ths.			
Additional Duty of 5 per cent., per act 3 Victoria, s. 17.	12,201	0	0				

DISTRICTS.	DUTY.	DISTRICTS.	DUTY.
	£ s. d.		£ s. d.
Canterbury	38,637 15 6	Lincoln	1,086 7 10
Essex	821 7 54	Rochester	113,960 18 0
Hants	11,083 8 114	Stourbridge	1,327 3 54
Hereford	25,142 3 114	Suffolk	615 12 34
Hertford	562 16 64	Sussex	49,887 5 24
I. of Wight	7,296 17 8	Worcester	5,265 17 11

### CHEESE,

Imported into England during thirteen years.

YEAR.	CWTS.
1831	134,459
1832	133,446
1833	134,073
1834	146,594
1835	140,832
1836	211,169
1837	237,732
1838	227,877
1839	210,436
1840	226,462
1841	270,149
1842	179,748
1843	179,389

### AREA OF OCEANS AND LAKES.

OCEANS.	SQUARE MILES.	LAKES.	SQUARE MILES.
Atlantic	25,000,000	Lake Superior	40,000
Antarctic	30,000,000	Huron	25,000
Arctic	8,400	Michigan	25,000
Pacific	50,000,000	Erie	11,000
Indian	17,000,000	Ontario	10,000
Mediterranean	1,600,600	Ladoga	6,330
Caspian Sea	160,000	Onega	3,280
Black Sea	950,000	Wena	2,136
Baltic	175,000	Geneva	336
The ocean, with all its inland bays and seas, covers an area of nearly 147,800,000 square miles, or about $\frac{3}{4}$ of the surface of the globe. Supposing its mean depth to be about two miles, its cubic contents will be nearly 300,000 cubic miles.		Constance	290
		Garda	180
		Maggiore	150
		Neuchâtel	115
		Lucerne	100

### LENGTH OF MILES, ETC., IN DIFFERENT COUNTRIES.

An English statute mile contains 1760 yards, or 8 furlongs.—A Russian verst is a little more than  $\frac{2}{3}$  of a mile English.—A Scotch and Irish mile is about  $\frac{3}{4}$  English.—A Spanish and Polish mile is about  $\frac{3}{4}$  English.—A German mile is more than 4 English.—A Swedish, Danish, and Hungarian mile is from 5 to 6 English.—A French common league is nearly three English.—An English marine league is three English miles.—The Arabian mile is 2148 English yards.—The China Li is 632 yards.—The Flanders league is 6864 yards.—The French kilometre is 1093 yards.—The French metre is 394 English inches.—The Dutch mile is 8101 yards.—The Persian parasang is 6086 yards.—The Roman mile is 1628 yards.—The Turkish berri is 1826 yards.

## WEIGHT IN TONS PER ANNUM, IN AND OUT OF THE STAFFORDSHIRE POTTERIES.

FROM LIVERPOOL.		TONS.
Clay and Stone @ Devonshire, Dorsetshire, and Cornwall, &c.	}	70,000
Gravesend.		
Newhaven.		
Flints { Shoreham	}	30,000
Ashes, Acids, Bones, Borax, Cobalt, Colour		4,000
Timber		9,000
Grain		7,000
Groceries		6,500
Provisions		1,500
Wines, Spirits, Ale, and Porter		800
Miscellaneous		1,000
		129,800
FROM SOUTH STAFFORDSHIRE.		
Iron		7,000
Copper and Steel		60
Stourbridge Bricks		1,200
		8,260
FROM LONDON.		
Mercury, Haberdashery, &c. from London and the West	}	500
Groceries, &c.		1,500
Copper		500
Miscellaneous		1,000
		3,500
FROM MANCHESTER.		
Cotton, Silk, and Woollen Goods		1,200
Window Glass and Lead		300
Malt, &c.		500
Miscellaneous from the North		500
		2,500
Making Total into the Potteries from all quarters,		145,610 Tons.

TO LIVERPOOL.		TONS.
Earthenware, and China for Exportation and Home, 154,000 Crates, &c.	}	51,000
Bricks and Tiles		10,000
		61,000
TO MANCHESTER.		
Earthenware and China for consumption there, and counties York, &c.	}	3,500
Bricks and Tiles		30,000
Coals, Stockport		25,000
Miscellaneous		1,000
		59,500
TO SOUTH STAFFORDSHIRE.		
From Stone, about		15,000
TO BIRMINGHAM AND THE WEST OF ENGLAND.		
Earthenware and China		6,000
TO LONDON AND THE SOUTH OF ENGLAND.		
Earthenware, China, &c.		12,000
Coals, Cannel, and Slack		30,000
		42,000
TO CHESTER, &c.		
Earthenware and China		1,000
Making Total out of the Potteries to all quarters,		183,000 Tons.

## ABBREVIATED RULES.

**TO FIND THE VALUE OF A DOZEN ARTICLES.**  
Take the price in pence as shillings, and if there are any farthings in the price, add threepence for each.  
EXAMPLE.—1 dozen yards, at 2s. 8d. per yard.  
2s. 8d. = 32d., which taken as shillings, is £1 12s. 0d.

**TO FIND THE VALUE OF SEVERAL DOZENS.**  
Multiply the value of one dozen by the number of dozens.  
Ex.—5 dozen at 2s. 8d. is 5 X £1 12s. = £8.

**TO FIND THE VALUE OF 100 ARTICLES.**  
For every farthing take as many pence and twice as many shillings.  
Ex.—100 at 1½d. As many pence (5) + twice as many shillings (10) = 10s. 6d.

**TO FIND THE VALUE OF A POUND AT ANY PRICE PER OUNCE.**  
Take the price in farthings as shillings, and divide by three.  
Ex.—1 lb. of Tea, at 54 per oz.  
54d. is 21 farthings; taken as shillings, 21 ÷ 3 = 7s.

**TO FIND THE VALUE OF AN OUNCE AT ANY PRICE PER POUND.**  
Take the shillings as farthings, and multiply by three.  
Ex.—At 6s. 6 X 3 = 18; 18 farthings are 4½d.

**TO FIND THE VALUE OF A CWT. AT ANY NUMBER OF PENCE PER POUND.**  
Multiply 9s. 4d. by the number of pence.  
Ex.—At 7d. 9s. 4d. X 7 = £3 5s. 4d.

**TO FIND THE VALUE OF A TON.**  
Find for a cwt. as above; take the shillings as pounds; for 4d. over, add 6s. 8d.; for 8d. over, add 13s. 4d.  
Ex.—66s. as £ + 6s. 8d. for the 4d. = £65 6s. 8d.

**TO FIND THE VALUE OF A POUND, AT PER CWT.**  
Multiply the price in shillings by 8, and divide by 7, and you have the value of a pound in farthings.  
Ex.—At 28s. 28 X 8 = 224; 224 ÷ 7 = 32f. or 8d.

**TO FIND THE RATE PER ANNUM, AT ANY NUMBER OF PENCE PER DAY.**  
To the number of pence add one half, which sum will be pounds, to this add 5 times the sum given, for the total amount.  
Ex.—At 2s. 6d. 30 + 15 = £45; and 2s. 6d. X 5 = 12s. 6d., gives £45 12s. 6d. per annum.

**FOR CALCULATING INTEREST AT FIVE PER CENT.**  
Multiply the pounds by the days, and divide the product by 365. The quotient gives the interest at 5 per cent. in shillings.  
Ex.—What is the interest of £55 for 73 days?  
55 X 73 = 4015; 4015 ÷ 365 = 11s.

**TO FIND THE INTEREST OF ANY SUM OF MONEY FOR ANY TIME, AT ANY RATE PER CENT.**  
Multiply by double the rate per cent., reject the unit figure, and the product will be the interest in shillings for one year at the required rate per cent.  
Ex.—What is the interest of £853 10s. for 4 years and 6 months, at 5 per cent. per annum.  
£853 10s.  
10 halves 853s. 6d. = £42 13 6 Interest for 1 yr.  
4

$\begin{array}{r} 853 \mid 5 \\ 12 \\ \hline 6 \mid 0 \end{array}$	$\begin{array}{r} 6 \text{ ms } \mid \frac{1}{2} \\ 2 \mid \frac{1}{2} \end{array}$	$\begin{array}{r} 170 \mid 14 \mid 0 \\ 21 \mid 6 \mid 9 \\ 7 \mid 2 \mid 3 \end{array}$
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Answer 199 8 0

## STATEMENT OF MERCHANDISE

ARRIVED AT AND SENT FROM MANCHESTER BY THE LIVERPOOL AND MANCHESTER RAILWAY COMPANY, FROM THE 16<sup>TH</sup> JANUARY TO 28<sup>TH</sup> FEBRUARY, 1838, INCLUSIVE. ALSO, A STATEMENT OF THE DELIVERIES FROM THE WAREHOUSES DURING THE SAME TIME.

DESCRIPTION OF GOODS.	No. of Waggon.	No. of Packages.	WEIGHT.		
			Tons.	Cwt.	Qr.
FROM LIVERPOOL AND VARIOUS PARTS OF THE LINE, INCLUDING BIRMINGHAM.					
Groceries, &c.....		79,583	7,592	2	3
Cotton and Wool.....		69,786	10,569	2	3
Corn, Flour, and Grain.....		46,385	5,205	6	0
Timber, &c.....		14,862	483	14	3
TOTAL .....	7,858	210,616	23,850	6	1
AVERAGE EACH DAY.					
Groceries, &c.....		2,065	199	5	2
Cotton and Wool.....		1,836	279	3	3
Corn, Flour, and Grain.....		1,221	136	9	0
Timber, &c.....		365	12	14	2
TOTAL .....	207	5,545	627	12	3
TO LIVERPOOL AND VARIOUS PARTS OF THE LINE, INCLUDING BIRMINGHAM.					
TOTAL .....	3,214	63,255	9,266	15	2
Average each Day .....	85	1,665	241	1	1
Total to and from Liverpool, &c. ....	11,072	273,871	33,117	2	1
Average each Day .....	286	7,207	871	10	0
Live Stock not included in the above, say 12,660 Head; weight, 1,296 Tons, making a grand Total of .....		286,531	34,413	2	1
DELIVERIES FROM THE CO.'S WAREHOUSES.					
COUNTRY & MERCHANTS' TEAMS.					
	No. of Teams	Places of Dely.	No. of Packgs.		
TOTAL .....	10,723	11,920	146,257		
Average each Day .....	282	314	3,849		
RAILWAY CO.'S TEAMS.					
TOTAL .....	2,349	7,520	46,754		
Average each Day .....	62	198	1,230		
Total of Country, Merchants', and Railway Teams .....	13,072	19,440	193,011		
Average each Day .....	344	512	5,080		
It should be remarked that during the above period there was a severe frost, and the canals were stopped, which caused a considerable increase of merchandise on the railway.					
THE FOLLOWING WERE THE RATES OF CARRIAGE FOR GRAIN IN 1837, BETWEEN MANCHESTER AND LINCOLNSHIRE.					
	Present actual Cost, per Ton, of the carriage of Grain by the existing Water Conveyances.	Cost per Ton of Grain, if carried by the South Union and other Railways as far as they extend, and up to that point by the existing Water Conveyances where required.	Cost per Ton of Grain, if carried to Sheffield and other Railways as far as they extend, and up to that point by the existing Water Conveyances.		
Newark and Manchester.....	24s. 6d.	24s. 7½d.	30s. 6d.		
Lincoln and ditto .....	28s. 6d.	27s. 7½d.	29s.		
Gainsborough and ditto .....	28s. 6d.	28s. 7½d.	25s. 6d.		
Boston and ditto .....	34s. 3d.	33s. 1½d.	34s.		
Grantham and ditto .....	28s. 6d.	28s. 7½d.	35s. 10d.		
Nottingham and ditto .....	20s. 6d.	20s. 7½d.	27s. 10d.		
Derby and ditto .....	18s. 6d.	17s. 6d.	28s.		

## IMPORTS OF RAW PRODUCE.

COUNTRIES FROM WHICH THE PRINCIPAL ARTICLES OF RAW PRODUCE USED BY OUR  
MANUFACTURERS WERE IMPORTED IN 1840.

	Cotton.	Wool.	Flax.	Silk.
	lbs.	lbs.	cwts.	lbs.
America, United States .....	487,866,504	115,095	1	70,510
Brasil .....	14,779,171	9,532		
British Settlements in Australia .....		9,721,243		
West Indies .....	866,157	3,286		
Chili .....		989,790		
China .....				247,755
Columbia .....	1,818,940	842		15
East India Company's Territories and Ceylon .....	77,011,839	2,441,370		1,108,465
Egypt .....	6,387,109		12	
France .....			43,295	1,584,980
Germany .....		21,812,664		369
Holland .....			113,108	204,060
Italy and the Italian Islands .....	627,452	1,668,541	746	500,834
Peru .....		2,770,379		
Prussia .....			135,590	
Russia .....		4,517,998	870,401	
Turkey .....			107	725,189
All other Countries .....	3,140,838	5,385,544	89,980	17,734
	592,488,010	49,436,284	1,253,240	4,459,542

## EXPORTS OF RAW PRODUCE.

COUNTRIES TO WHICH THE ABOVE-NAMED ARTICLES WERE RE-EXPORTED IN 1840.

	Cotton.	Wool.		Flax.	Silk.
	—	Foreign.	British.	—	—
	lbs.	lbs.	lbs.	cwts.	lbs.
America, United States of .....		169,437	504		4,222
Belgium .....	4,984,589	558,297	4,108,316		3,883
France .....		180,566	664,669		98,420
Germany .....	11,870,137		551		1,599
Holland .....	7,362,977	88,533	33,465		24,003
Italy and the Italian Islands .....	6,659,560				1,182
Mexico .....					10,640
Russia .....	5,760,991				60
All other Countries .....	2,034,968	17,792	2,782		3,110
	38,673,229	1,014,625	4,810,887	none.	147,119

## CATTLE.

AN ACCOUNT OF THE NUMBER OF CATTLE  
AND SHEEP SOLD IN SMITHFIELD MARKET,  
IN EACH YEAR FROM 1833 TO 1842.

YEARS.	Cattle.	Sheep.
..... 1833 .....	152,093	1,167,820
..... 1834 .....	162,485	1,237,360
..... 1835 .....	170,325	1,381,540
..... 1836 .....	164,351	1,219,510
..... 1837 .....	172,435	1,329,010
..... 1838 .....	183,362	1,403,400
..... 1839 .....	180,780	1,360,250
..... 1840 .....	171,092	1,326,020
..... 1841 .....	164,195	1,293,530
..... 1842 .....	171,954	1,423,280

STATEMENT OF THE NUMBER AND VALUE  
OF LIVE STOCK EXPORTED FROM DUBLIN  
TO LIVERPOOL AND COASTWAYS, IN THE  
YEAR 1839.

Description.	Number Exported.		Total Value.
	To Liverpool	Coastways.	
Black Cattle ..	164,897	4,995	} 3,830,867
Calves .....	1,448	78	
Sheep .....	193,860	58,717	
Lambs .....	27,812	540	
Pigs .....	384,850	5,711	
Horses .....	5,644	80	
Mules .....	214	220	

BRITISH MINING COMPANIES.					
	Number of Shares.	Amount of Share.	Capital.	Amount paid up or expended	Paid up per Share.
Albion .....	8,000	£5 0	£40,000	28,000	£3 10
Anglesey .....	500	....	....	2,500	5 0
Bischoe Bridge .....	4,000	5 0	20,000	20,000	5 0
Blenavon .....	8,000	50 0	400,000	360,000	45 0
Borrington Park .....	5,000	20 0	100,000	7,500	1 10
British Copper .....	6,000	5 0	30,000	24,000	4 0
British Iron .....	20,000	60 0	1,200,000	1,200,000	60 0
British Silver and Lead .....	12,000	5 0	60,000	....	....
British Tin .....	8,000	2 10	20,000	12,000	1 10
Brewer .....	120	....	....	....	....
Budnick .....	70	....	....	....	....
Carn Brea .....	1,000	....	....	....	....
Cornubian Lead Company .....	2,000	....	....	4,000	2 0
Cuddra .....	....	....	....	....	10 0
Cook's Kitchen .....	512	....	....	....	....
Charlestown .....	112	....	....	....	....
Copper Bottom .....	100	....	1,500	1,500	15 0
Cornwall Great United .....	6,000	12 0	72,000	42,000	7 0
Cornwall United .....	4,000	10 0	40,000	6,000	1 10
Dartmoor Consolidated .....	5,000	5 0	25,000	15,000	3 0
Durham County Coal Company .....	10,000	....	....	370,000	37 0
Danescumb .....	2,000	....	....	4,000	2 0
De Dunstanville .....	6,000	....	....	....	....
Duffield .....	1,000	30 0	30,000	11,000	11 0
East Cornwall .....	5 0	50,000	22,500	2 5	....
East Cornwall .....	2,000	6 0	12,000	12,000	6 0
East Wheal Brothers .....	5,000	20 0	100,000	50,000	10 0
East Wheal Strawberry .....	2,500	10 0	25,000	11,520	4 10
English .....	4,000	25 0	100,000	56,000	14 0
English Copper Company .....	10,000	100 0	1,000,000	230,000	23 0
East Mulberry Hills .....	1,200	....	....	4,200	3 10
East Pool .....	256	....	....	....	....
East Tretoil .....	4,000	....	....	4,000	1 0
Great Wheal Prosper .....	3,200	....	....	24,000	7 10
Great Wheal Charlotte .....	4,000	....	....	12,000	3 0
Hayle Consolidated .....	6,000	5 0	30,000	18,000	3 0
Hibernian .....	10,000	50 0	500,000	122,500	12 5
Holmbush .....	1,000	100 0	100,000	....	....
Isle of Sark .....	2,000	....	....	22,000	11 0
Imperial State Company .....	15,000	10 0	150,000	37,500	2 10
Kelveris .....	12,000	5 0	60,000	....	....
Mining Company of Ireland .....	20,000	25 0	500,000	140,000	7 0
New South Hove .....	4,000	6 0	20,000	6,000	1 10
North Consolidated .....	1,000	16 0	16,000	16,000	16 0
North Cornwall .....	8,000	5 0	40,000	16,000	2 0
Ferran Consolidated .....	6,000	5 0	30,000	15,000	2 10
Polberou Consolidated .....	3,000	10 0	30,000	30,000	10 0
Polbreen .....	6,000	5 0	30,000	24,000	4 0
Rhymney Iron .....	10,000	50 0	500,000	500,000	50 0
Relistian .....	2,000	....	....	....	....
Redmoor Consolidated .....	5,000	5 0	25,000	17,500	3 10
Redmeth, United .....	10,000	10 0	100,000	35,000	3 10
Rosewall Hill .....	....	....	....	....	180 0
Roche Rock .....	10,000	3 0	30,000	12,500	1 5
South Towan .....	800	....	....	8,000	10 0
South Wheal Leisure .....	5,000	5 0	25,000	....	....
South Polgoth .....	5,000	4 0	20,000	....	....
St. Hilary .....	8,000	2 10	20,000	8,000	1 0
Tamar Consolidated .....	6,000	5 0	30,000	18,000	3 0
Treleigh Consolidated .....	5,000	5 0	25,000	23,750	4 15
Trevorgus .....	6,000	5 0	30,000	15,000	2 10
Trevelian .....	4,000	....	....	18,000	4 10
Tin Croft .....	6,000	....	....	39,000	6 10
Tretoil .....	4,300	....	....	6,450	1 10
Trevidgia .....	1,000	....	....	5,000	5 0
Treviskey and Barrier .....	120	....	....	....	....
Tresavean .....	96	....	....	....	....
Trethellan .....	120	....	....	....	....
United Hills .....	4,000	5 0	20,000	20,000	5 0
Wendron .....	2,000	8 0	16,000	....	....
West Cork .....	8,300	50 0	165,000	165,000	50 0
West Tresavean .....	12,000	5 0	60,000	12,000	1 0
West Wheal Brothers .....	9,000	5 0	45,000	18,000	2 0
West Wheal Jewel .....	4,520	5 0	22,600	40,680	9 0
Wheal Brothers .....	5,000	20 0	100,000	....	....
Wheal Gilbert .....	5,000	5 0	25,000	7,500	1 10
Wheal Harmony and Montague .....	5,000	10 0	50,000	50,000	10 0
Wherry .....	800	15 0	12,000	12,000	15 0
Wicklow .....	6,000	....	....	30,000	5 0
Wheal, Julia .....	1,000	....	....	....	....
Wheal, Kitty .....	128	....	....	....	....

This list consists principally of those Mines whose shares have been negotiated from time to time in the London Market, and the amount of Capital paid up on them amounts to about £4,500,000. For the greater part, they are not only complete failures, but are memorable proofs of the folly and cupidity of British Capitalists on the one hand, and of the knavery of their projectors on the other. The reader must not, however, from this draw any inference unfavourable to the Mining interests generally, for its great importance will be fully appreciated from the amount of its annual productions, for which see following page.

# FOREIGN MINING COMPANIES.

	Number of Shares.	Amount of Share.	Capital.	Amount paid up or expended.	Paid up per Share.	Value Jan. 1. 1843.
		£ s. d.	£	£ s.	£ s. d.	£
Alten.....Copper	4,000	15 0 0	60,000	50,000 0	13 10 0	2
Anglo-Mexican Gold.....	10,000	100 0 0	1,000,000	1,050,000 0	105 0 0	4
Ditto, new shares.....	10,000	25 0 0	250,000	250,000 0	25 0 0	1
Bolanos.....Silver	2,000	150 0 0	300,000	300,000 0	150 0 0	5
Ditto, Scrip.....	2,000	25 0 0	50,000	50,000 0	25 0 0	5
Brazilian.....	10,000	35 0 0	350,000	260,000 0	26 0 0	7½
Bolivar.....Copper	10,000	20 0 0	200,000	200,000 0	20 0 0	4
Ditto, Scrip.....	10,000	10 0 0	100,000	100,000 0	10 0 0	2
Cata Branca.....	10,000	10 0 0	100,000	65,000 0	6 10 0	7½
Candonga.....Gold	10,000	20 0 0	200,000	75,000 0	7 10 0	..
Ditto, registered.....	10,000	..	..	75,000 0	7 10 0	..
Cobre.....Copper	12,000	..	..	480,000 0	40 0 0	21
Conceicao.....	10,000	10 0 0	100,000	20,000 0	2 0 0	..
Coplapo.....	10,000	20 0 0	200,000	135,000 0	13 10 0	9
Columbian.....	8,500	55 0 0	467,500	510,000 0	60 0 0	2
Ditto, New.....	1,500	11 0 0	16,500	16,500 0	11 0 0	..
General Mining Association.....	20,000	20 0 0	400,000	400,000 0	20 0 0	2
Mocubas and Cocas.....	12,000	25 0 0	300,000	300,000 0	25 0 0	4
Mexican.....	5,351	60 0 0	321,060	313,033 10	58 10 0	2
Minas Geraes.....	5,000	20 0 0	100,000	40,000 0	8 0 0	..
New Granada.....	2,000	10 0 0	20,000	8,000 0	4 0 0	..
Penoles.....Gold	1,020	12 0 0	12,240	12,240 0	12 0 0	..
..	3,060	5 0 0	15,300	336,600 0	110 0 0	..
Real Del Monte.....	14,582 {	63 10 6	..	..	63 10 0	..
Ditto, unregistered.....	..	..	..	..	..	3
Ditto, Loan Notes.....	..	..	..	..	150 0 0	60
Rio de Anori.....Gold washing	2,500	10 0 0	25,000	8,750 0	3 10 0	..
Santiago de Cuba.....	7,000	25 0 0	175,000	70,000 0	10 0 0	18
St. John Del Rey.....	11,000	14 10 0	159,500	23,375 0	2 2 6	..
United Mexican.....	30,000	40 0 0	1,200,000	1,260,000 0	42 0 0	1
Ditto, Scrip.....	..	..	..	..	5 0 0	2
Ditto, New Scrip.....	..	..	..	..	5 0 0	3
Union.....Gold	5,000	22 10 0	112,500	49,375 0	9 17 6	..
Zacatecas.....	14,000	0 10 0	7,000	7,000 0	0 10 0	..

Total, 24 Companies.—Capital paid up, £6,464,833 10 0

The prices marked against the above denote (with one or two exceptions) the utter worthlessness of these undertakings, and the consequent loss of the capital embarked in them.

## ESTIMATE OF THE ANNUAL PRODUCE OF BRITISH MINES.

COALS: The Export in 1841 was..... 1,345,294 tons.  
HOME CONSUMPTION: Carried Coastways..... 7,649,599 "  
" Inland, about..... 19,000,000 "

TOTAL..... 28,498,193 tons { free on board } £14,249,091  
" " " " " at 10s. per ton.

This trade gives employment to 1,400 vessels, 15,000 Seamen and Boys, 21,000 Pitmen and others employed at the collieries above ground, 2,000 Keelmen, Coal-boatmen, Carters, and Trimmers, 5,000 Whippers, Lightermen, &c. 2,500 Factors, Agents, &c. in London; 45,500 for the North Country Trade alone; and taking the proportion which this bears to the whole of the United Kingdom, it follows that not less than 150,000 persons are engaged in the production and distribution of coal. The capital embarked in the coal mines is estimated at from 8 to 10 millions, on which the proprietors realize about 10 per cent. The extent of coal fields in the North embraces 837 square miles of country, and is capable of supplying the present rate of consumption drawn from that quarter, being about 14 millions of tons annually, for 430 years.

IRON: The Export in 1841 was..... 360,875 tons  
Home Consumption, about..... 700,000 "

1,060,875 tons at £4 per ton..... £4,243,500

## THE FOLLOWING SUMMARY WILL EXHIBIT THE PRESENT POSITION OF THE IRON TRADE:—

No. of Furnaces.	Average In blast. weekly make	No. of Furnaces.	Average In blast. weekly make
South Staffordshire, 1st div. .... 57	54	4,200	2
2d div. .... 32	32	2,475	3
North Staffordshire ..... 18	12	620	162
Shropshire ..... 36	24	1,355	21
Derbyshire ..... 15	14	577	2
Yorkshire ..... 30	24	1,050	..
Scotland ..... 91	65	5,925	..
Northumberland ..... 7	2	120	..
Durham ..... ..	..	..	..
Forest of Dean ..... ..	..	..	..
South Wales ..... ..	..	..	..
North Wales ..... ..	..	..	..
Ireland ..... ..	..	..	..
TOTAL.....	527	350	55,511

from which must be deducted 20 per cent., for reduced make agreed to by the trade, leaving 1,062,000 tons as the actual make annually.

COPPER: The Export in 1841 was..... 5,295 tons  
Home Consumption, about..... 9,000 "

14,295 tons at £100 per ton..... £1,429,500

TIN: The Export in 1841 was..... 1,167 tons  
Home Consumption, about..... 3,500 "

4,667 tons at £80 per ton..... £373,360

(Exclusive of the produce of the mines in the territories of the East India Company.)

LEAD: The Export in 1841 was..... 14,979 tons  
Home Consumption, about..... 28,000 "

42,979 tons at £20 per ton..... £859,580

Total Annual Produce of the British Mines..... £21,155,131

## Exports from the United Kingdom

IN 1842.

An Account of the Exports of the Principal Articles of British and Irish Produce and Manufactures, in the year ending 5th January, 1843, compared with the Exports of the preceding Year.

ARTICLES.	Declared Value of the Exports in the Year ended 5th Jan.	
	1842.	1843.
Coals and Culm.....	£675,287	£733,574
Cotton Manufactures.....	16,232,510	13,910,084
" Yarn.....	7,206,968	7,752,676
Earthenware.....	606,759	554,221
Glass.....	421,336	310,061
Hardware and Cutlery.....	1,623,961	1,392,888
Linen Manufactures.....	3,347,555	2,366,152
" Yarn.....	972,466	1,023,978
Metals, viz: Iron and Steel.....	2,877,278	2,453,892
Copper and Brass.....	1,523,744	1,821,754
Lead.....	242,334	357,377
Tin, in bars, &c.....	86,574	199,911
Tin Plates.....	368,700	348,236
Salt.....	175,615	206,639
Silk Manufactures.....	788,894	589,644
Sugar, Refined.....	548,336	439,335
Wool, Sheep or Lambs'.....	555,620	510,965
Woolen Yarn.....	552,148	573,521
" Manufactures.....	5,748,673	5,199,243
Total of the foregoing Articles.....	£44,609,358	£40,738,151

## Imports into the United Kingdom

IN 1842.

Importation and Home Consumption in 1842 of the Principal Articles of Foreign and Colonial Merchandise, as returned for the year ending 5th January, 1843.

	Imports.	Home Consumptn
Coffee.....lbs	41,338,490	28,583,931
Eggs.....number	89,347,823	89,347,823
Currants.....cwt	264,151	196,522
Gloves, Leather.....pairs	1,622,735	1,592,028
Hemp.....cwt	590,262	614,167
Molasses.....cwt	487,562	535,191
Oil: Train, Blubber, Spermaceti.....tuns	16,665	15,784
Olive.....tuns	14,067	9,555
Rice.....cwt	512,788	252,412
Seed, Flax and Linseed.....qrs	371,144	359,241
Silk: Raw.....lbs	3,915,193	3,935,714
Thrown.....lbs	397,472	363,976
Manufactures of Europe.....lbs	264,311	233,872
India.....pieces	348,776	39,988
Spirits: Rum.....gallons	4,635,605	2,097,866
Brandy.....gallons	1,637,435	1,083,106
Sugar.....cwt	4,699,261	3,876,455
Tallow.....cwt	1,008,316	1,034,508
Tea.....lbs	40,706,521	37,391,012
Tobacco.....lbs	38,204,641	22,152,707
Wine, of all sorts.....gallons	7,218,571	5,075,407
Wool: Cotton.....lbs	532,067,984	477,717,632
Sheep and Lambs'.....lbs	45,833,983	44,611,465

## IMPORT OF FOREIGN METALS in 1841.

COUNTRIES.	Iron including unwrought Steel.	Copper.		Tin.	Lead.
		Manu- factured.	Ore.		
	Tons.	Cwts.	Cwts.	Cwts.	Tons.
Russia.....	3,530				
Sweden.....	20,762	2,526	332		
Norway.....	977	38			
British West Indies.....	4	75	7,774		
Hayti.....			2,650		
Cuba.....			653,186		
United States of America.....	526	2	16,019		
Columbia.....			34,362		
Chili.....		3,847	217,720		
Peru.....		3,822	32,404	347	
Holland.....	9		1,801	365	4
Cape of Good Hope.....		459		84	
East India Company's territories (exclusive of } Singapore.....		21		3,524	
Singapore.....				17,915	
Java.....				6,197	
Spain.....	34				1,099
Gibraltar.....					83
Italy.....	225		4,910		13
Australian Settlements.....	204	127			4
Brazil.....		80			10
Guernsey and Jersey (Produce).....		1			140
Isle of Man.....			1,760		3,194
All other Countries.....	1,221	145	783		3
Total.....	27,492	11,173	973,701	28,434	4,550
Smelted in the United Kingdom.....			201,743		
Re-Exported.....	4,538	12,268	778	25,344	946
FOREIGN MANUFACTURES:					
Entered by Weight.....cwt	71		639		
Re-Exported.....cwt	71		639		
Entered by Value.....£	£4,227		£2,367		
Re-Exported.....£	£2,492		£277		

Fractions of a ton or cwt. are included in the total.



# IMPORT OF FOREIGN WHEAT AND FLOUR.

STATEMENT OF THE TOTAL QUANTITIES OF WHEAT AND WHEAT FLOUR IMPORTED INTO AND EXPORTED FROM GREAT BRITAIN, IN EACH YEAR FROM 1697 TO 1841.

Years.	Imported.	Exported.	Years.	Imported.	Exported.	Years.	Imported.	Exported.	Years.	Imported.	Exported.
	Qrs.	Qrs.		Qrs.	Qrs.		Qrs.	Qrs.		Qrs.	Qrs.
1697	400	14,098	1734	7	498,747	1771	2,510	10,089	1808	84,889	98,005
1698	1,680	6,886	1735	9	155,380	1772	25,474	6,959	1809	455,987	31,278
1699	489	557	1736	18	118,218	1773	56,857	7,587	1810	1,567,126	75,795
1700	5	49,057	1737	32	465,071	1774	289,149	15,228	1811	536,151	97,768
1701	1	98,324	1738	8	588,384	1775	560,988	91,037	1812	290,710	45,325
1702	....	90,330	1739	23	285,492	1776	29,578	210,664	1813	559,000	Records destroyed
1703	50	106,615	1740	5,469	54,391	1777	233,323	87,686	1814	852,557	
1704	2	90,514	1741	7,540	45,417	1778	105,594	141,070	1815	884,475	
1705	....	95,185	1742	1	235,695	1779	8,689	222,251	1816	332,491	127,611
1706	77	188,332	1743	3	373,979	1780	3,915	224,059	1817	1,089,855	317,524
1707	....	74,155	1744	2	234,274	1781	169,866	103,021	1818	1,694,261	55,608
1708	86	83,989	1745	8	325,340	1782	30,095	145,152	1819	625,688	44,689
1709	1,552	71,618	1746	....	131,105	1783	584,183	51,943	1820	986,479	94,657
1710	400	16,407	1747	....	270,491	1784	216,947	89,288	1821	707,384	190,846
1711	....	80,941	1748	6	545,240	1785	110,863	132,685	1822	510,602	160,499
1712	....	148,539	1749	382	631,007	1786	51,463	205,466	1823	424,019	145,951
1713	....	179,969	1750	280	950,483	1787	68,239	150,235	1824	441,591	61,680
1714	....	180,668	1751	3	602,597	1788	148,719	82,971	1825	787,606	38,796
1715	16	173,257	1752	....	430,117	1789	112,656	140,014	1826	897,127	20,054
1716	....	75,876	1753	....	300,754	1790	222,567	30,892	1827	711,868	57,323
1717	....	25,657	1754	301	356,781	1791	460,656	70,026	1828	1,410,580	75,489
1718	....	74,381	1755	....	257,466	1792	22,417	300,278	1829	2,180,065	75,067
1719	30	130,533	1756	5	102,752	1793	490,398	76,869	1830	2,205,751	57,149
1720	....	84,843	1757	141,562	11,545	1794	327,902	165,048	1831	2,867,800	68,575
1721	....	82,748	1758	20,353	9,234	1795	315,793	18,839	1832	1,254,351	289,538
1722	....	178,915	1759	162	227,641	1796	879,230	24,679	1833	1,168,467	95,222
1723	....	158,082	1760	3	290,614	1797	461,797	84,528	1834	981,486	139,482
1724	148	247,162	1761	....	441,956	1798	396,721	59,782	1835	790,808	134,076
1725	12	211,175	1762	56	285,385	1799	463,183	39,362	1836	861,156	256,978
1726	....	43,626	1763	72	429,538	1800	1,264,520	22,013	1837	1,109,492	308,430
1727	....	31,089	1764	1	356,357	1801	1,424,765	28,406	1838	1,293,400	158,621
1728	74,874	3,895	1765	104,547	57,128	1802	647,563	149,304	1839	3,110,729	42,512
1729	40,313	18,993	1766	11,020	164,939	1803	373,725	76,580	1840	2,526,645	87,242
1730	7	94,530	1767	497,905	5,071	1804	461,140	63,073	1841	2,923,189	30,390
1731	4	139,650	1768	349,268	7,433	1805	920,834	77,555			
1732	....	302,012	1769	4,378	40,892	1806	310,242	29,566			
1733	7	427,425	1770	34	78,449	1807	404,946	25,113			

NOTE.—This Account includes the Trade with Ireland.

## Export of COAL, &c. from the Tyne, Tees, Wear, Humber, &c.

RETURN of the Number of Ships, with their Tonnage, distinguishing British from Foreign, that have cleared Outwards in each Year, from 1830 to 1841 inclusive, from the Ports of the Tyne, including Blyth and Hartley, the Wear and the Tees, together with Seaham Harbour and Hartlepool, and the Ports of the Humber, with Cargoes, or Part Cargoes, of Coal, for the purpose of Exportation to Foreign Countries:—and, of the number of Ships, with their Tonnage, distinguishing British from Foreign, that have cleared Outwards, in the same period, from the same Ports, with Cargoes for Exportation, in all other branches of Trade.

Ports of the Tyne, &c.										Ports of the Tees, &c.											
Years.	With Coals.				All other Branches of Trade.						Years.	With Coals.				All other Branches of Trade.					
	British.		Foreign.		British.		Foreign.					British.		Foreign.		British.		Foreign.			
	Ships.	Tons.	Ships.	Tons.	Ships.	Tons.	Ships.	Tons.	Ships.	Tons.		Ships.	Tons.	Ships.	Tons.	Ships.	Tons.	Ships.	Tons.	Ships.	Tons.
1830	728	88,730	560	44,833	52	6,340	30	2,217	1830	3	262	4	318	3	241	2	133	—	—	—	
1831	630	76,991	532	61,222	70	8,019	18	1,918	1831	9	1,019	2	144	6	492	—	—	—	—	—	
1832	772	126,508	445	48,957	92	10,351	12	1,368	1832	6	754	2	221	7	759	—	—	—	—	—	
1833	792	134,866	624	61,256	88	9,786	16	1,714	1833	15	2,340	9	1,039	8	808	1	47	—	—	—	
1834	816	135,657	599	60,634	84	8,998	19	2,484	1834	51	7,339	15	1,089	9	797	1	70	—	—	—	
1835	1,014	179,988	793	82,355	86	9,012	20	2,815	1835	123	18,899	39	3,010	6	486	1	58	—	—	—	
1836	1,391	196,951	876	93,768	90	10,109	21	3,392	1836	113	18,990	197	12,822	11	1,123	5	255	—	—	—	
1837	1,521	237,444	1,085	122,440	87	11,114	32	4,143	1837	124	20,077	274	16,555	5	356	5	451	—	—	—	
1838	1,525	251,959	1,177	127,486	82	13,020	38	4,260	1838	216	38,160	410	26,615	2	330	7	460	—	—	—	
1839	1,697	282,154	1,266	139,171	99	15,653	98	5,053	1839	301	52,307	524	32,791	4	449	5	210	—	—	—	
1840	1,934	318,414	1,319	136,489	75	11,097	66	6,413	1840	364	65,181	544	35,763	5	392	3	171	—	—	—	
1841	2,346	389,427	1,455	168,095	101	16,160	73	8,760	1841	454	80,139	596	44,392	4	203	9	377	—	—	—	

Ports of the Wear, &c.										Ports of the Humber, &c.											
Years.	With Coals.				All other Branches of Trade.						Years.	With Coals.				All other Branches of Trade.					
	Ships.	Tons.	Ships.	Tons.	Ships.	Tons.	Ships.	Tons.	Ships.	Tons.		Ships.	Tons.	Ships.	Tons.	Ships.	Tons.	Ships.	Tons.		
1830	599	107,244	114	9,889	7	668	—	—	1830	There are no records to enable the officers to distinguish those Ships which carried Coal from other branches of trade in these years.											
1831	652	108,912	225	20,547	9	1,877	6	443	1831												
1832	691	127,951	223	20,783	10	1,587	6	389	1832												
1833	655	122,708	269	26,981	2	258	11	555	1833												
1834	512	94,798	310	28,186	7	919	8	532	1834	118	20,444	55	5,268	538	84,512	142	10,769				
1835	459	83,878	401	37,314	5	1,020	12	736	1835	85	14,912	65	6,400	580	92,215	166	16,922				
1836	535	100,691	359	30,465	4	940	7	402	1836	89	20,015	72	8,364	500	86,583	137	13,507				
1837	692	132,261	576	45,077	2	298	13	814	1837	73	14,709	67	4,642	561	98,303	151	13,653				
1838	844	158,559	809	63,747	2	210	11	497	1838	121	22,348	96	7,177	529	98,026	177	16,319				
1839	1,074	202,902	762	60,535	3	465	9	595	1839	110	22,206	321	22,595	524	102,690	215	18,468				
1840	1,319	252,853	815	65,653	3	440	7	424	1840	125	25,762	222	17,376	502	95,350	297	20,953				
1841	1,231	233,009	791	62,999	2	192	6	305	1841	169	31,770	204	21,853	488	93,519	260	22,991				

There are no records to enable the officers to distinguish those Ships which carried Coal from other branches of trade in these years.

## RAILWAY TRAVELLING.—TABLE SHEWING THE RATE OF TRAVELLING.

Observe the time the Train takes in passing from one milestone to the next, and with that amount look down the left hand column for the nearest time in minutes and seconds to the observed time. On the same line with it, in the right hand column, will be found the rate at which the train travels in miles per hour.

Time of Train passing over one mile.	Rate of travelling in Miles per Hr.	Time of Train passing over one mile.	Rate of travelling in Miles per Hr.	Time of Train passing over one mile.	Rate of travelling in Miles per Hr.	Time of Train passing over one mile.	Rate of travelling in Miles per Hr.
Min. Sec.		Min. Sec.		Min. Sec.		Min. Sec.	
6 0	10	3 30	17	2 20	26	1 45	34½
5 0	12	3 15	18½	2 10	27½	1 40	36
4 40	13	3 0	20	2 0	30	1 35	37½
4 20	14	2 50	21½	1 55	31½	1 30	40
4 0	15	2 40	22½	1 50	32½	1 25	42½
3 45	16	2 30	24				

## BIRMINGHAM & GLOUCESTER RAILWAY COMPANY.

PASSENGERS.—Six months ended Dec. 31, 1841.

	Number.	Total miles travelled by the whole number.	Average number of miles travelled by each Passenger.
First Class .....	50,294	1,226,733	24 one-fifth
Second Class .....	117,660	2,252,716	19 one-fifth
Third Class .....	26,322	497,203	19 three-fifths.
<b>Total .....</b>	<b>193,276</b>	<b>3,976,652</b>	<b>20 three-fifths.</b>

Equivalent to 75,031 Passengers conveyed the whole distance of 53 miles.—Average fare of all classes, d. 2.134 per head per mile.

	No. of Passengers,	Receipts from Passengers.	Receipts from Passengers run by Trains per mile.
By Mail Trains (daily) .....	120½	£ 26 12 6	2s. 6½d.
By all other Trains .....	946½	£ 167 18 7	5s. 8d.
By Mail Trains on Sundays .....	124	£ 26 9 1	2s. 6d.

## LOCOMOTIVE POWER.

	Running Trains and Piloting.	Working Lickey Incline.	Total.
	£ s. d.	£ s. d.	£ s. d.
Wages of Drivers and Firemen .....	779 17 4	132 7 11	912 5 3
Coke (27s. per ton) .....	3,395 19 2	324 13 6	3,720 12 8
Oil and Tallow (consumed in running) .....	489 3 6	49 8 4	538 11 10
General Charges (see below) .....	2,290 19 5	237 19 7	2,528 19 0
<b>Total charges running department .....</b>	<b>6,955 19 5</b>	<b>744 9 4</b>	<b>7,700 8 9</b>
Repair of Engines and Tenders, and all charges of Repairing Department .....	2,289 13 1	245 1 0	2,534 14 1
<b>Total .....</b>	<b>9,245 12 6</b>	<b>989 10 4</b>	<b>10,235 2 10</b>
Depreciation of Stock in the half-year .....	926 0 0	99 0 0	1,025 0 0
<b>Total .....</b>	<b>10,171 12 6</b>	<b>1,088 10 4</b>	<b>11,260 2 10</b>

## ANALYSES OF GENERAL CHARGES.

	£ s. d.	£ s. d.
Wages of Pumpers and Coke Fillers .....	422 3 9	
Wages of Cleaners and Labourers .....	639 13 10	
<b>Firewood .....</b>	<b>158 18 6</b>	<b>1,061 17 7</b>
<b>Hose Pipes .....</b>	<b>71 17 9</b>	
<b>Oil, Cotton-waste, &amp;c., for Cleaners, and all other stores .....</b>	<b>798 17 8</b>	
<b>Superintendent, Clerks, Foremen, Store and Time-keepers .....</b>	<b>1,029 13 11</b>	
<b>Premium to Men for saving on Coke .....</b>	<b>364 7 6</b>	
<b>Total .....</b>	<b>2,528 19 0</b>	

# BIRMINGHAM & GLOUCESTER RAILWAY GOODS STATISTICS.

WEIGHT, RECEIPTS, AND MILEAGE OF GOODS CONVEYED BETWEEN 1ST JAN. AND 31ST DEC., 1841.

1841.	Weight by Company.			Weight by Carriers.			No. Carriers.	Total Weight.			Total Receipts.			Average Miles.	Receipts per Ton per mile conveyed.
	T.	C.	Q.	T.	C.	Q.		T.	C.	Q.	£	s.	D.		D.
1st Jan. to 30th June .....	4088	7	1	3132	14	3	7	7221	2	0	3610	14	4	304	3,934
1st July to 31st December .....	5881	0	2	4043	10	1	7	9924	10	3	5249	3	9	344	3,694
1st July to 8th October (14 weeks) .....	2693	1	1	2322	15	2	6	5015	16	3	2712	16	2	33	3,934
9th October to 31st December (12 weeks) .....	3187	19	1	1720	14	3	7	4908	14	0	2536	7	7	352	3,469
1842.															
1st Jan. to 30th June .....	6951	17	0	3858	4	0	8	10810	1	0	5635	8	1	392	3,162

## AVERAGE PER WEEK.

1841.	T.	C.	Q.	T.	C.	Q.		T.	C.	Q.	£	s.	D.		
1st January to 30th June .....	157	4	34	120	9	3	7	277	14	24	139	15	6	....	....
1st July to 8th October .....	192	7	0	165	18	0	6	358	5	0	187	1	10	....	....
9th October to 31st December .....	285	13	1	143	7	3	7	409	1	0	214	6	10	....	....

## LOCOMOTIVE POWER.

LOCOMOTIVE POWER.				Lickey Incline.	
Mileage of Engines.....	142,666 miles		} 1,242 trips.		
Mileage of Trains.....	133,491 do.				
Total quantity of Coke consumed .....	T.	C.	Q.	Total.	
Coke per mile run by engines (including proportion of piloting)	2516	3	34	238	15
	39½ lbs.		430½ lbs.		2754 18 34
Running charges .....	Per mile run by Engine.			Per Trip, including return, and keeping steam up.	
Repairs and depreciation .....	118d.			12 0	
	5½d.			5 64	
Total .....	1 54			17 64	
Average number of Engines in working order during the six months.....				23	
Ditto ditto under repair .....				5	
Ditto ditto laid by .....				2	
				30	
(Average total earnings of trains per mile. 7s. 34d.; per double journey, £38 12s. 11d.)					

Six Months ended Dec. 31st.	Carriers.	Weight by Company.			Weight by Carriers.			Total Merchandise Conveyed.			Receipts for Merchandise.			Receipts for Coals.			Average Miles exclusive of Coals.	Receipts per Ton per Mile exclusive of Coals.
		T.	C.	Q.	T.	C.	Q.	T.	C.	Q.	£	s.	D.	£	s.	D.		d.
1841 .....	7	5,881	0	2	4,043	10	1	9,924	10	3	5,249	3	9	1,166	14	10	344	3,694
1842 .....	7	8,350	4	0	5,129	4	0	13,479	8	0	7,055	19	10	1,166	14	10	424	2,956
1843 .....	10	4,493	1	2	12,674	4	3	17,167	6	1	6,845	4	2	1,277	10	10	424	2,265
Twelve months ended Dec. 31st.																		
1841 .....	7	9,969	7	3	7,176	5	0	17,145	12	3	8,859	18	1	1,166	14	10	324	3,790
1842 .....	7	15,302	1	0	8,987	8	0	24,289	9	0	12,691	7	11	1,166	14	10	41 4-5	3,043
1843 .....	9	8,071	0	3	20,209	19	3	28,281	0	2	12,240	4	0	2,788	19	5	424	2,430

In the RAILWAY MAGAZINE for 26th March, 1842, Mr. HERAFATH gives the following statistics:—

The length of line run by the London and Birmingham, including the Aylesbury branch, is 119½ miles; of the Grand Junction, including the Liverpool and Manchester, and Chester and Crewe, it is about 133½; of the South Western, taking in the Gosport branch, 92½; and of the Great Western, including the Bristol and Exeter, and Cheltenham Union, 169 miles. Hence, taking the receipts earned during the past half-year, exclusive of other sources of revenue, and the expenditures, we have—

	Length Miles.	Half-year's		Half-year's		Per centage of Expenditure on Receipts.	Per cent on capital and loans for the half-year of Receipts.		Half-year's profit per cent on Paid up Cap. alone.		Cost per Mile.
		Receipts.	Expend.	Receipts per mile.	Expend. per mile.		Receipts.	Expend.	Cap. and Loans.		
London & Birmngm	119½	429,023	134,684	3590.2	1132.3	81.685	7.2782	2.3061	4.9721	6.53	52,396
Grand Junction ..	133½	236,207	104,988	1784.2	784.6	43.973	10.5220	4.6375	5.8845	6.80	21,525
South Western....	92½	153,162	70,284	1651.3	757.8	46.889	6.2372	2.9522	3.3750	3.91	26,475
Great Western....	169	337,006	152,787	1994.2	904.1	46.336	5.3145	2.4094	2.9051	3.35	53,968

\* This is given by Mr. Moss, the Chairman. The other costs per mile are computed upon the number of miles constructed.

# ESTIMATE OF THE ENTIRE PRODUCE OF THE MANUFACTURES OF THE UNITED KINGDOM.

	Raw Cotton taken for Consumption in the same Year.	Exports in 1841	Home Consumption
	lbs.		
Cottons - - - - -	- - - - -	23,513,599	28,000,000
In 1824 Mr. Huskisson estimated the value of the pro- ductions of our Cotton Manufactures at - - -	33,500,000	141,038,743	
In 1833 Mr. Dugald Bannatyne and Mr. Mc. Culloch ..	34,000,000	293,682,976	
" Mr. Baines of Leeds - - - - -	31,338,693		
In 1834 Mr. Macqueen - - - - -	52,513,416	302,935,657	
<p>It is difficult to reconcile these discrepancies, but that a vast increase in the Home Consumption of Manufactured Cottons has taken place is evident from the fact that, while the quantity exported in 1840 as compared with 1824 had only increased 143 per cent. as shown by the official value, the quantity of Raw Cotton taken for consumption in the same period had increased from 141 millions to 328 millions of pounds, or about 375 per cent. Some are of opinion that in 1840 our Cotton Manufactures reached the sum of 60 millions, but in 1841 the quantity of Raw Cotton taken for consumption was reduced to 440,297,101 lbs., and consequently the Manufactures fell off to the extent of 8½ millions, of which the Export Trade was only 1 million and the Home Consumption 7½ millions.</p>			
Woolens.....		6,301,836	14,000,000
<p>In 1836 G. R. Porter, Esq. in his "Progress of the Nation," estimated the number of Sheep in England and Wales at 23,759,509 producing 569,328 packs of wool, weighing 136,617,120 lbs. Home Consumption of Foreign Wool in 1841, 53,130,446 lbs.</p>			
Hardware and Cutlery, including Brass, Copper, Iron, Steel, Tin, and } Pewter Manufactures, and including the value of unwrought metals .. }		6,659,963	11,000,000
Leather.....		432,117	13,000,000
Linen.....		4,358,071	8,000,000
Paper, Furniture, Books, Printing, &c.....		416,345	14,000,000
Silk.....		788,894	6,000,000
China, Glass, Earthenware, &c.....		1,022,189	4,000,000
Jewellery, Plate, &c.....		214,156	3,000,000
Miscellaneous.....		7,910,282	25,000,000
Total Exports in 1841.....		51,617,422	
Deduct the produce of the Mines.....	3,088,405		
" Land.....	1,194,710		
" Fisheries.....	197,990		
		4,481,105	
Total Export of Manufactures.....		47,136,316	126,000,000
Total Produce of Manufactures.....			£173,136,316

## Comparative Table of the Garnkirk and Glasgow Railway Traffic and Revenue, for the Nine Years preceding 1st January, 1841.

Years.	No. of Tons.	Increase of Number of Tons.	Revenue, exclusive of Passengers' Fares.	Increase.	No. of Passen- gers.	Increase of Number of Passengers	Revenue from Passengers.	Increase.	Gross Revenue.	Total Increase.
			£ s. d.	£ s. d.			£ s. d.	£ s. d.	£ s. d.	£ s. d.
1832	114,144	—	4,758 9 10½	—	62,605	—	1,717 16 6½	—	6,476 6 5	—
1833	112,471	—	4,794 17 8½	36 7 10	96,003	33,398	2,440 0 8	722 4 14	7,234 18 4½	758 11 11½
1834	132,657	20,186	5,428 9 3½	633 11 7	117,743	21,740	2,965 2 0	545 1 4	8,413 11 3½	1,178 12 11
1835	143,520	10,863	5,872 10 3½	444 1 0	136,724	18,981	3,438 10 3	453 8 3	9,311 0 6½	897 9 3
1836	137,867	—	6,473 15 9½	601 5 6	145,703	8,979	3,450 4 7	411 14 4	10,324 0 4½	1,012 19 10
1837	146,851	8,984	8,036 7 2	1,552 11 4½	119,490	—	3,803 9 0	—	11,839 16 2	1,515 15 10
1838	181,615	34,764	9,523 17 8½	1,487 10 6	126,810	7,320	4,119 16 6	316 7 6	13,643 14 2½	1,803 18 0½
1839	206,275	24,660	10,065 4 7½	541 6 11½	97,746	—	3,397 13 9	—	13,462 18 4½	—
1840	254,010	47,735	12,001 10 1	1,936 5 5½	116,187	18,441	3,712 7 3	314 13 6	15,713 17 4	2,250 18 11½

# TRAFFIC ON THE LONDON AND BIRMINGHAM RAILWAY.

Comparative Mileage of Passenger Traffic for the Half Years ended 31st December, 1839, 1840, and 1841.

	Number of Passengers.	Miles Travelled.	Average Number of Passengers per day.	Average Number of Miles Travelled by each Passenger.	Equal to the number of Passengers travelling the whole distance per day.
Half Year ended 31st December, 1839 ..	341,420	22,284,830	1855½	65½	1081
Ditto ditto 1840 ..	394,688	25,931,163	2146	65½	1258
Ditto ditto 1841 ..	413,272	27,156,212	2246	65½	1317

The same for the Half Years ended 30th June, 1839, 1840, and 1841.

Half Year ended 30th June, 1839 .....	267,144	17,391,035	1476	65	857
Ditto ditto 1840 .....	327,930	21,675,287	1722½	66	1058
Ditto ditto 1841 .....	354,322	23,399,936	1957½	66	1154

Comparative Statement of Half Yearly Receipts, from 1st January, 1839, to 31st December, 1841.

	Half Year ending 30th June, 1839.	Half Year ending Dec. 31st, 1839.	Half Year ending June 30th, 1840.	Half Year ending Dec. 31st, 1840.	Half Year ending June 30th, 1841.	Half Year ending Dec. 31st, 1841.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Passengers .....	254,697 11 8	250,781 18 0	293,185 11 1	262,893 2 6	299,506 1 11	299,506 1 11
Mails .....	7,391 7 0	7,285 9 1	7,314 19 2	7,195 13 10	7,314 19 2	7,314 19 2
Horses, carriages & dogs .....	16,229 0 2	15,509 7 6	17,525 10 0	16,970 3 0	18,359 14 0	18,359 14 0
Parcels .....	21,479 14 6	20,304 8 1	25,308 5 9	24,670 17 2	27,704 7 10	27,704 7 10
Merchandise .....	43,415 1 11	47,920 16 8	56,274 16 7	67,617 3 7	69,102 9 10	69,102 9 10
Cattle .....	697 5 6	1,392 8 6	5,431 13 0	3,105 16 0	7,035 10 6	7,035 10 6
	270,241 0 4	343,910 0 9	343,194 7 10	405,040 15 7	382,452 16 1	429,023 3 8

Ratio of expenditure (including allowance for depreciation) from the period when the "Maintenance of Way" was at the charge of the Company.

per cent. on Receipts.

.....

44,611

39,058

38,513

34,806

A Correspondent (N. O. E.) in the Railway Times of 29th Oct., 1842, gives the following Table to prove that it is cheaper to travel by Railway than by Coach.

COMPARATIVE STATEMENT OF THE FARES BY COACH FORMERLY, AND RAILWAY IN 1842.

	By Coach.		By Railway.		
	In-side.	Out-side.	1st Class.	2nd Class.	3rd Class.
	s.	s.	s. d.	s. d.	s. d.
London to Birmingham	42	21	30 0	20 0	14 0
London to Bristol .....	32	18	30 0	21 0	12 6
London to Southampton	28	16	20 0	14 0	8 0
London to Brighton ..	21	12	14 6	9 6	6 0
Expenses on the road for every 100 miles..	15	10	2 0	1 0	0 6

And another Correspondent in the Railway Times, 5th Nov., 1842, gives the following to refute the above.

COMPARATIVE STATEMENT OF FARES BY COACH AND RAILWAY.

	By Coach.		By Railway.		
	Inside.	Outside.	1st Class.	2nd Class.	3rd Class.
	s. d.	s. d.	s. d.	s. d.	s. d.
London to Greenwich..	Bus... 6d.	Bus... 6d.	1 0	0 8	..
Do. to Blackwall ..	Coach 9d.	Coach 6d.	1 0	0 8	..
Do. to Brighton by Times coach	16s.	8s.	14 6	9 6	6 0
Do. to Leicester, coach running August, 1841..	20s.	12s.	27 0	18 6	..
Do. to Oxford ..	12s.	6s.	12 6*	8 6	5 0
Coach per Steventon to Oxford .....	..	I believe	2 6	..	..

\* To Steventon.

The immense importation of Cotton Wool, which, in the year 1844, reached the amount of 646,874,816 lbs., is principally consumed in Manchester and the neighbourhood, where, by the aid of machinery, it is spun, woven, bleached, printed, and in an incredibly short time again exported to all parts of the world. The exports of cotton manufactures during the year 1843, the latest as to which detailed accounts are published, reached the following amounts, viz. :—

	Yards.	Declared Value.
White or plain cottons .....	562,575,105	£ 8,024,287
Printed or dyed cottons .....	356,065,000	7,144,177
Hosiery and smallwares .....		1,085,536
Twist and yarn .....	140,321,176lb.	7,193,971
		23,447,971

of which by far the larger portion is furnished by the great Lancashire district.

The population, traffic, and tonnage, of Exports and Imports of Dublin, Cork, Belfast, Limerick, and Waterford, establish their claims to be primarily the leading points of the trunk lines, in any system of railway communication to be adopted in Ireland, the particulars under these heads being as follow :—

Places.	Population.	Tonnage of Exports and Imports.	Traffic to and from Dublin.
Dublin .....	265,000	590,000	966,000
Cork .....	110,000	280,000	400,000
Belfast .....	63,000	315,000	364,000
Limerick .....	70,000	121,500	264,000
Waterford .....	29,000	248,000	236,000

CORR CONSTITUTION, FEB. 3, 1842.

## STATEMENT

OF THE NUMBER AND TONNAGE OF VESSELS, INCLUDING THEIR REPEATED VOYAGES, THAT ENTERED THE PORTS OF GREAT BRITAIN FROM IRELAND, AND THAT LEFT THE PORTS OF GREAT BRITAIN FOR IRELAND, WITH CARGOES, IN EACH YEAR FROM 1801 TO 1837.

Years.	INWARDS.		OUTWARDS.		Years.	INWARDS.		OUTWARDS.	
	Ships.	Tons.	Ships.	Tons.		Ships.	Tons.	Ships.	Tons.
1801	5,360	456,026	6,816	582,033	1819	8,575	699,885	9,751	795,495
1802	5,820	461,328	5,540	449,350	1820	9,229	783,760	8,451	734,716
1803	5,796	504,684	5,656	502,279	1821	9,440	819,648	9,266	801,007
1804	5,643	490,465	6,148	557,279	1822	9,562	832,927	9,835	828,114
1805	6,306	566,790	6,875	596,720	1823	9,582	786,687	9,887	814,383
1806	6,307	578,297	7,032	586,728	1824	7,534	615,396	10,989	905,449
1807	No returns can be procured for this year.				1825	8,922	741,182	10,981	922,355
1808	8,477	768,264	7,560	696,473	1826	6,388	632,972	11,599	1,055,870
1809	7,041	600,898	7,011	580,587	1827	7,411	737,762	11,083	1,044,093
1810	5,403	713,067	9,121	763,488	1828	8,790	923,505	12,339	1,167,280
1811	9,014	759,097	8,216	703,738	1829	8,922	906,158	13,478	1,286,168
1812	10,812	925,736	10,053	867,342	1830	8,455	880,965	13,144	1,245,647
1813	8,569	715,851	9,098	773,286	1831	9,029	921,128	13,158	1,246,742
1814	7,562	613,898	8,719	715,171	1832	9,705	1,026,613	14,694	1,417,533
1815	8,462	680,333	9,602	776,313	1833	9,476	1,041,882	14,227	1,378,556
1816	7,575	621,273	8,861	721,772	1834	10,026	1,100,389	14,560	1,440,617
1817	9,186	770,547	9,530	762,770	1835	10,116	1,138,147	14,608	1,473,255
1818	7,969	644,896	8,863	763,622	1836	9,820	1,179,062	14,725	1,490,788
					1837	10,299	1,202,104	16,347	1,585,624

## COMMERCIAL MARINE OF EUROPE AND THE UNITED STATES.

The following statement of the commercial navies of the European States, abridged from the AUSTRIAN LLOYD'S, is copied from HUNT'S (AMERICAN) MERCHANTS' MAGAZINE for February, 1845. Referring to the last annual report of the Secretary of the Treasury of the United States, we find the whole tonnage to be 2,158,602 tons, that of Great Britain, as stated below, at 3,047,418 tons. It will therefore be seen, that the commercial navy of the United States is secondary to that of England:—

STATES.	SHIPS.	TONNAGE.	STATES.	SHIPS.	TONNAGE.
Great Britain .....	33,152	3,047,418	Norway and Sweden .....	5,450	471,772
United States .....	—	2,158,602	Denmark .....	3,036	153,408
France .....	13,835	589,517	Spain .....	2,700	80,000
Russia .....	242	50,706	Portugal .....	798	80,525
Austria .....	6,199	208,551	Sardinia .....	3,502	167,360
Prussia .....	835	222,094	Roman States .....	830	38,600
Hanover .....	454	56,682	Two Sicilies .....	9,174	213,198
Mecklenburgh .....	327	46,260	Lucca .....	180	20,000
Hamburgh .....	327	57,102	Tuscany .....	774	25,512
Bremen .....	215	53,052	Ionian Islands .....	2,183	48,662
Holland .....	1,195	376,084	Greece .....	3,069	147,598
Belgium .....	289	27,416	Turkey .....	2,220	182,000

## Abstract of the Tonnage, Dues, &amp;c., of the Hartlepool Dock and Railway Company, FOR THE YEAR ENDING 31st DECEMBER, 1841.

	Coals led in Tons.	Ships Loaded Tons register	Ships Refuse Tons register	Ballast Discharged	Goods Landed.	Goods Led.	Coaches produced.	Sundries.	Haulage.	Total.
Half Year ending 30th June, 1841 ..	294,978 8-20	195,976	20,674	Tons 54,538	Tons 9,060	Tons 13,200	£ s. d. 1,798 5 19	£ s. d. 1,250 9 7	£ s. d. 19,153 9 8	
Half Year ending 31st Dec., 1841 ..	351,008 10-20	227,349	19,945	63,731	8,060	13,200	2,540 1 3	12 10 0	1,063 0 11	25,626 16 6
Totals of Year ending 31st Dec., 1841	645,986 18-20	423,325	40,619	118,269	17,120	26,400	4,338 7 1	26 0 0	2,303 10 6	41,779 5 9
Totals of Year ending 31st Dec., 1840	461,049 18-20	310,968	45,572	84,910	26,834	43,282	1,913 13 7	17 10 0	3,712 7 0	32,594 2 8
Increase in 1841 .....	184,937	112,357	7,047	33,359	9,286	13,118	2,424 13 6	8 10 0	1,490 16 6	9,555 3 0
			Decrs.	Decrs.	Decrs.	Decrs.			Decrease.	

The following statement shows the traffic of the Port of London, including the operations of the St. Katharine Dock Company:—

## Shipping entered the Port of London, with Cargoes, from Foreign Parts.

1843.		1844.	
Ships.	Tons.	Ships.	Tons.
6,138	1,306,788	6,852	1,356,614

Increase in 1844, Ships 714; aggregate Register Tonnage, 49,876 tons.—TIMES, 22nd Jan., 1845.

The average cost per ton per mile of the principal articles conveyed by the Pontypool Canal is as follows:—

## MERCHANDISE BY WATER.

BETWEEN	Description of Conveyance.	Tons Conveyed in 1844.
Glasgow and Liverpool .....	Steam Boat.	52,653
Glasgow and London via Edinburgh .....	ditto	3,500
Glasgow and Hull via Edinburgh .....	ditto	2,958
Glasgow and Newcastle via Edinburgh .....	ditto	600
Dumfries and Liverpool .....	ditto	1,802
Annan and Liverpool .....	ditto	about 2,000
Dumfries and Glasgow .....	Traders.	1,156
Edinburgh and Liverpool .....	ditto	14,040
Glasgow and Whitehaven and Ulverstone .....	ditto	3,400
Glasgow and Balerno, &c. ....	Canal Boats.	8,190
		86,299

# A STATEMENT

OF THE QUANTITY OF THE UNDERMENTIONED ARTICLES OF MERCHANDISE CONVEYED BY  
THE ROYAL CANAL, BETWEEN DUBLIN AND THE SEVERAL PLACES MENTIONED,  
IN THE YEAR ENDING 31st DECEMBER, 1844.

To and from the following Places.	CARRIED TO DUBLIN.						CARRIED FROM DUBLIN.			Total to and from Dublin.
	General Goods.	Grain.	Flour.	Meal and Malt.	Butter and Eggs.	Total.	BaleGoods Porter and Ale.	Coal and Culm.	Total.	
	T. C.	T. C.	T. C.	T. C.	T. C.	T. C.	T. C.	T. C.	T. C.	
Shannon ....	106 0	909 2	.....	.....	.....	1,015 2	.....	84 0	84 0	1,099 2
Longford ....	110 0	10,003 0	.....	.....	65 1	10,178 1	3,209 10	1,249 5	4,458 15	14,636 16
Ballinacraig ..	.....	1,639 3	.....	219 14	193 15	2,052 12	8 6	137 14	146 0	2,198 12
Ballymahon ...	2 4	2,519 19	15 3	2,336 0	72 14	4,946 0	28 12	332 4	360 16	5,306 16
Mullingar ....	272 11	764 3	.....	16 7	218 10	1,271 11	119 2	1,202 1	1,321 3	2,592 14
Amounts ....	490 15	15,835 7	15 3	2,572 1	550 0	19,463 6	3,365 10	3,095 4	6,370 14	25,834 0

Besides the above there were carried within the same period Black Cattle and Sheep 1½ tons, Pigs 5,076 tons, together 5,188 tons; of which 1,110 tons were from Longford and the Shannon, and 3,964 tons from the other three places mentioned.

## IRISH CATTLE.

Description of Live Stock.	Counties where fed, and Number of each kind of Stock, in 1841.	Proportion sent annually to Dublin,	Number sent annually to Dublin.
Cattle .....	½ Mayo ..... 40,429 Sligo ..... 45,615 ¾ Roscommon ..... 30,784 ¾ Leitrim ..... 30,281 Longford ..... 23,064 ¾ Westmeath ..... 22,150 ¾ Meath ..... 20,788	15 per cent. " " " " " " 20 per cent. "	6,000 6,800 4,600 4,500 3,400 4,400 4,100
Total number of Cattle.....			33,800
Sheep.....	½ Mayo ..... 70,583 Sligo ..... 32,391 ¾ Roscommon ..... 60,347 ¾ Leitrim ..... 6,892 Longford ..... 13,458 ¾ Westmeath ..... 51,817 ¾ Meath ..... 29,848	20 per cent. " " " " " " 25 per cent. "	14,000 6,490 12,000 1,200 2,700 12,900 7,400
Total number of Sheep.....			56,600
Pigs.....	½ Mayo ..... 25,269 Sligo ..... 21,768 ¾ Roscommon ..... 21,116 ¾ Leitrim ..... 14,542 Longford ..... 17,971 ¾ Westmeath ..... 11,373 ¾ Meath ..... 8,348	33 per cent. " " " " " " 50 per cent. "	8,400 7,200 7,000 4,800 6,000 5,600 4,200
Total number of Pigs.....			43,200

## TRAFFIC IN COALS AND LIME.

THE QUANTITY OF COALS SHIPPED AT WORKINGTON FOR TEN MONTHS, ENDING  
MARCH 31st, 1845, WAS BY THE

Earl of Lonsdale, Clifton Colliery .....	6,280 Waggons, at	S. D.	£	S. D.
Jos. Harris and Co., Greysouthern Collieries .....	2,194	4 4	1,349	16 8
J. W. Fletcher and Co., ditto ditto .....	2,448	5 2	752	15 8
W. Thornburn and Co., Camerton ditto .....	9,405	6 6	795	12 0
		4 8	2,196	3 4

20,997

5,094 7 8

The quantity of Lime shipped at Workington from Brigham and Eaglesfield for the year 1844, was 59,565 Bushels, at 5d., which is equal to about 6,000 tons, reckoning 10 Bushels to the ton..... } 1,240 18 9

## A TABLE

SHEWING THE PRESENT AMOUNT OF TRAFFIC ON THE "LEEDS AND LIVERPOOL CANAL"  
BETWEEN THE SEVERAL PLACES MENTIONED BELOW, WITH THE AVERAGE CHARGES  
MADE FOR GOODS, &c., THEREON, AND TIME OCCUPIED BY THE BOATS PER HOUR.

TRAFFIC FROM AND TO	Annual Average and Description of Traffic on the Canal in 1845.					Average Time occupied in Miles per Hour.	Average charges made by the Carriers for		Tonnage Dues on the Canal for	
	Coals, Coke, Lime, Stone, Iron, &c.	Cotton, Cotton-waste, Dye-woods, &c.	Timber	Malt, Flour, Grain, Oatmeal, &c.	Manufactured Goods and General Merchandise.		Flour Out-mal, &c. per load	Manufactured Goods and General Merchandise. per cwt.	Coals, Stone, and Minerals.	Cotton, Groceries, and General Merchandise.
	TONS.	TONS.	TONS.	TONS.	TONS.		S. D.	S. D.	Per ton permile	Per ton per mile.
Liverpool & Skipton, &c.	13,277	16,753	3,232½	5,676½	37,490		1 6	0 9½		
Liverpool & Marsden, &c.	3,016	.....	.....	.....	1,040		1 3	0 9		
Liverpool and Burnley..	12,453½	10,781	2,730	2,175	9,160½					
Liverpool and Huncote..	2,340	.....	.....	.....	.....					
Liverpool and Enfield ..	1,820	676	1,040	.....	520			as certain'd		
Liverpool and Church ..	16,614	.....	2,288	.....	.....			1 0		
Manchester & Blackburn	676	.....	.....	.....	7,228		0 6	0 3		
Blackburn and Burnley..	46,410	312	..	1,222	11,908					
Hapton and Alleytroysd.	1,716	.....	.....	.....	.....					
Burnley and Alleytroysd.	468	.....	650	.....	.....			5d. per ton per mile.	Three farthings.	Three half-pence.
Burnley and Enfield....	.....	.....	.....	1,196	884					
Burnley and Skipton &c.	37,102	780	4,816	4,160	2,506					
Enfield and Skipton ....	7,358	.....	..	1,456	1,040					
Blackburn and Burnley..	4,906 Passengers.									

## GOODS.

TRAFFIC PASSING BETWEEN THE RIVER MERSEY AND PLACES SOUTH OF PRESTON BROOK,  
IN THE YEAR 1844.

DESCRIPTION OF GOODS.	Mode of Transit.	Traffic.				
		By what Routes conveyed.				
		Via Preston Brook.		Via Anderton.	Via Ellesmere Port.	Total Amount of Traffic.
		Liverpool Trade.	Runcorn Trade.			
		TONS.	TONS.	TONS.	TONS.	TONS.
Ale and Porter .....	Canal.	3,936	.....	.....	884	4,820
Bricks and Stone.....		244	2,139	.....	.....	2,383
Crates .....		3,488	22,572	25,000	.....	51,060
Clay, Flints, and China Stone .....		1,800	42,695	22,000	.....	66,495
Copper and Tin.....		610	940	.....	.....	1,550
Cotton.....		1,058	.....	.....	416	1,474
Grain .....		10,130	1,411	.....	4,368	15,909
Groceries .....		8,560	.....	.....	8,216	16,776
Glass .....		7	.....	.....	.....	7
Hardware and Tin .....		7,918	.....	.....	16,276	24,194
Iron.....		13,879	1,007	.....	71,344	86,230
Iron Ore.....		.....	467	.....	15,600	16,067
Malt .....		1,754	.....	.....	780	2,534
Pigs.....		.....	.....	.....	832	832
Salt .....		956	6,559	.....	.....	7,515
Slates .....		.....	2,923	.....	.....	2,923
Soap .....		.....	2,121	.....	.....	2,121
SUNDRIES, VIZ.—						
Brimstone.....		2,102	1,060	.....	3,300	6,402
Bones .....		152	181	.....	223	506
Dyewoods .....		2,010	571	510	2,110	5,201
Drysalts .....		1,219	.....	170	1,281	2,670
Drugs .....		140	50	70	230	490
Grains .....		2,609	.....	501	3,916	7,026
Manufactured Goods .....		8,099	70	92	11,753	20,005
Packets, contents not stated.....		167	3,264	8,657	2,615	14,703
Timber .....		7,146	1,067	.....	15,766	23,969
Wool .....		320	.....	.....	.....	320
Soda Ash .....		.....	.....	.....	3,536	3,536

# TRAFFIC ON LIVERPOOL & MANCHESTER RAILWAY, FROM OPENING TO 1886.

	From 16 September to 31 December, 1880.	From 1 January to 30 June, 1881.	From 1 July to 31 December, 1881.	From 1 January to 30 June, 1882.	From 1 July to 31 December, 1882.	From 1 January to 30 June, 1883.	From 1 July to 31 December, 1883.	From 1 January to 30 June, 1884.	From 1 July to 31 December, 1884.	From 1 January to 30 June, 1885.	From 1 July to 31 December, 1885.	From 1 January to 30 June, 1886.
Merchandise between Liverpool and Manchester.....	Tons. 1,433	35,865	52,224	54,174	61,995	68,284	69,806	69,522	72,577	76,448	79,114	81,415
Road Traffic.....	..	378	2,347	3,707	6,011	8,712	9,733	15,201	11,482	12,282	15,015	14,983
Between Liverpool and Bolton Junction.....	..	6,827	10,917	14,720	18,836	19,461	18,708	19,633	22,321	24,917	22,853	21,219
Coal.....	2,630	2,889	8,396	29,456	39,940	41,375	40,134	46,039	53,293	55,444	60,802	68,893
Passengers booked at Company's Offices.....	71,951	188,726	256,321	174,122	182,823	174,421	215,071	200,676	235,961	205,741	268,106	202,848
Number of Trips—												
With Passengers.....	No Ac.	2,259	2,944	2,636	3,363	3,262	3,253	3,317	3,325	3,222	3,347	3,353
With Goods.....	..	1,873	2,298	2,248	1,679	2,244	2,587	2,499	2,168	2,091	2,132	2,157
With Coal.....	..	293	150	234	211	164	37	32	161	355	473	536

## Export of the Produce of British Mines in 1841.

COUNTRIES.	Coal.	Iron including unwrought Steel.	Copper.	Tin.	Lead.
	Tons.	Tons.	Cwts.	Cwts.	Tons.
Russia.....	75,595	1,028	67	2,790	3,179
Sweden.....	26,700	182	351	179	139
Norway.....	15,207	489	19	16	98
Denmark.....	148,724	12,949	175	19	235
Prussia.....	115,501	26,214	5	132	121
Germany.....	169,695	23,798	7,601	448	545
Holland.....	171,242	36,245	2,169	461	2,097
Belgium.....	8,013	1,627	1,093	13	131
France.....	450,410	19,099	1,026	8,905	2,570
Portugal, Azores, and Madeira.....	28,977	11,485	2,752	397	240
Spain and the Canaries.....	34,786	7,343	1,032	433	57
Gibraltar.....	14,082	2,402	947	580	50
Italy.....	38,887	25,149	4,201	1,329	249
Malta.....	50,131	1,375	617	4	14
Ionian Islands.....	3,654	523	29	32	13
Kingdom of Greece.....	5,027	3,031	....	268	10
Turkey.....	48,059	5,664	245	4,061	74
Asia.....	....	....	51,652	21	....
Syria and Palestine.....	60	152	....	168	12
Africa.....	....	....	1,831	77	....
Egypt.....	21,122	537	....	....	....
Tripoli, Tunis, Algiers, and Morocco.....	26,413	491	....	....	....
Western Coast of Africa.....	2,440	1,909	....	....	....
Cape of Good Hope.....	5,588	1,582	....	....	153
Mauritius.....	3,670	1,812	....	....	....
East Indies and China.....	63,698	....	....	....	2,317
Australian Settlements.....	4,226	6,846	....	....	345
New Zealand.....	509	468	....	....	12
British North American Colonies.....	54,592	25,693	5,420	90	656
British West Indies.....	71,298	5,164	5,107	229	477
Foreign.....	22,292	5,245	3,768	217	65
United States of America.....	52,207	79,186	18,148	1,753	91
Texas.....	112	38	....	....	....
Columbia.....	....	325	64	14	10
Brazil.....	14,166	4,421	6,256	517	504
States of the Rio de la Plata.....	4,034	3,305	12	168	29
Chili.....	4,575	681	400	....	4
Peru.....	2,288	698	224	....	7
Isles of Guernsey, Jersey, Alderney, and Man.....	78,564	2,486	3,298	24	109
All other Countries.....	....	36,735	26	5	366
Total..... Coals.....	1,831,554	360,875	118,531	23,340	14,979
..... Cinders.....	16,514	....	....	....	....
..... Culm.....	216	....	....	....	....
	1,848,294	....	....	....	....

## COAL AND COKE TONNAGE

ON THE GREAT NORTH OF ENGLAND RAILWAY FOR TWELVE MONTHS, BEING THE NUMBER OF TONS DELIVERED AT EACH OF THE UNDERMENTIONED COAL DEPOTS IN EACH MONTH FOR ONE YEAR, ENDING NOVEMBER 30th, 1844.

	Darlington Bank Top.	Black Banks.	Croft.	Cowton.	North- allerton.	Otting- ton.	Thirsk.	Sessay.	Raskelf.	Aine.	Tollerton.	Shipton.	York.	Total in each Month.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
December 1843	34	....	3354	3474	16804	139	14304	476	3804	4842	1992	874	41634	96684
January 1844	114	164	4184	2034	18854	1304	1161	392	3664	3332	214	168	4091	10,2914
February "	....	34	6524	3564	19532	1554	11602	3154	3544	2314	2254	64	68054	12,278
March "	153	....	7442	4534	20754	1052	1099	3504	460	468	2864	122	77824	13,9032
April "	23	222	2304	24	7454	382	480	1702	2022	934	156	202	2904	50924
May "	....	102	4484	113	12254	624	7062	282	216	236	1372	55	16534	52684
June "	54	62	7892	384	23344	844	11774	3104	4414	2724	216	77	28744	8973
July "	3	204	7504	256	11792	884	784	3212	254	2234	1044	1044	46314	87214
August "	....	282	6554	3274	16704	732	9064	2762	3564	2234	1694	1174	62244	11,0304
September "	74	384	6634	3714	16344	962	832	2202	2792	2182	1222	1222	74744	12,0642
October "	104	....	5462	4284	21732	147	1345	3662	4244	3044	229	1212	97944	15,8924
November "	6	....	5234	5214	2220	1044	11384	4674	5302	3354	2724	1574	11,4704	17,7462
Totals..	654	2384	67582	37864	20,8082	12262	122214	3950	42662	33644	23332	11994	70,710	130,9304

## COAL AND COKE TONNAGE

ON THE STOCKTON AND DARLINGTON RAILWAY FOR THREE YEARS.

	DARLINGTON.	YARMOUTH.	STOCKTON.
	Tons.	Tons.	Tons.
1841	27,040	15,114	21,629
1842	22,939	11,864	20,526
1843	19,400	13,884	19,544
Totals ..	69,379	40,862	61,699
Averages ..	23,126	13,454	20,566

## AN ACCOUNT

Of the Quantities of Malt on which Duty has been charged, in England, Ireland, and Scotland, in each of the Years ending 5th April, from 1810 to 1840.

Years ending 5th April	England.	Ireland.	Scotland.	TOTAL.
1810	23,541,291	3,033,302	784,527	27,359,120
1811	25,979,328	2,437,859	968,100	29,385,287
1812	22,066,782	2,637,341	893,707	25,597,830
1813	18,945,766	2,159,326	658,667	21,763,749
1814	23,656,035	3,342,512	1,130,042	28,128,589
1815	26,349,263	3,025,066	1,319,472	30,693,801
1816	26,556,102	2,232,406	1,258,061	30,046,569
1817	17,820,324	1,680,219	1,142,539	20,643,082
1818	24,217,175	1,403,336	1,167,619	26,788,130
1819	22,325,607	1,879,082	1,442,613	25,647,302
1820	24,739,371	1,734,647	1,400,309	27,874,327
1821	26,084,730	1,869,758	1,225,883	29,180,371
1822	24,848,630	1,822,125	1,077,596	27,748,291
1823	27,312,755	1,811,490	1,429,188	30,553,433
1824	26,064,802	1,840,196	2,014,835	29,919,833
1825	27,887,092	2,279,188	2,784,477	32,950,757
1826	29,181,241	2,701,358	3,724,919	35,607,518
1827	25,342,913	2,142,530	2,490,067	29,975,510
1828	28,738,524	2,049,642	3,194,336	33,982,502
1829	28,217,125	2,266,226	3,713,490	34,196,841
1830	22,821,035	2,079,468	3,944,406	28,844,909
1831	29,079,758	1,892,082	4,089,127	35,060,967
1832	34,115,332	2,115,435	4,105,377	40,336,144
1833	32,249,892	1,970,058	3,767,242	37,987,192
1834	34,061,263	2,049,407	4,406,913	40,517,583
1835	34,072,665	2,152,138	4,437,220	40,662,023
1836	38,261,833	2,511,231	4,736,449	45,509,513
1837	35,657,887	2,268,475	4,751,594	42,677,956
1838	33,620,593	2,279,069	4,480,792	40,380,454
1839	33,687,302	2,101,744	4,567,083	40,356,129
1840	34,086,055	1,604,307	4,309,656	40,000,018
1841	.....	.....	.....	42,093,966
1842	.....	.....	.....	34,418,544

## THE NUMBERS OF CATTLE AND SHEEP

Sold in Smithfield Market, in each of the twenty-two years, from 1821 to 1842.

Years.	Cattle.	Sheep.	Years.	Cattle.	Sheep.
1821	129,125	1,107,230	1832	158,640	1,287,180
1822	142,043	1,340,160	1833	152,093	1,167,820
1823	149,552	1,264,920	1834	162,485	1,237,360
1824	163,615	1,239,720	1835	170,325	1,381,540
1825	156,985	1,130,310	1836	164,551	1,219,510
1826	143,460	1,270,530	1837	172,435	1,329,010
1827	138,363	1,335,100	1838	183,262	1,403,400
1828	147,968	1,288,460	1839	180,780	1,360,250
1829	158,313	1,240,300	1840	177,497	1,371,870
1830	159,907	1,287,070	1841	166,922	1,310,220
1831	148,168	1,189,010	1842	175,347	1,468,960

## COALS.

The Coals brought to London during the same Years have increased materially in quantity, owing partly to the introduction of gas-lighting, and partly also to the great extension of the employment of steam vessels.

Years.	Tons.	Years.	Tons.	Years.	Tons.
1821	1,744,914	1829	2,095,420	1837	2,629,321
1822	1,667,307	1830	2,116,023	1838	2,582,720
1823	1,936,891	1831	2,053,673	1839	2,638,256
1824	1,982,032	1832	2,149,820	1840	2,589,087
1825	1,921,091	1833	2,014,804	1841	2,902,674
1826	2,103,498	1834	2,080,547	1842	2,754,719
1827	1,874,610	1835	2,299,816		
1828	1,893,083	1836	2,399,551		

A TABLE					
Shewing the present Amount of Traffic by Land & Water on the Ancholme Navigation.					
Description of Traffic.	By Land or Water	Mode of Transp.	Annual Number of Tons of Goods, &c. passing various distances, averaged in 1844.	Average.	
				Charge per Ton per mile.	Time occupied in Miles per hour.
Coals and Coke .....	Land	Waggons and Carts	15,902 13-20ths	11d. by the Carriers.	2½
Lime, Stone, Iron, &c.	ditto	ditto	2,012 8-20ths		
Linseed Oil Cake, &c.	ditto	ditto	5,252 3-5ths		
Grain, Flour, and Malt	ditto	ditto	47,379 12-20ths		
Timber .....	ditto	ditto	2,112 11-20ths		
Fruit and Vegetables ..	ditto	ditto	1,071 17-20ths		
General Merchandise ..	ditto	ditto	8,629 7-20ths	Per Ton. s. d. 7 0 From Yorkshire Pitts to Brigg. 9 0 From Yorkshire to Grimsby. 6 0 6 9 3 6 8 4 10 0 From Hull to Gainsborough.	2½ by Canal Bonts, 7by Steam Boats, River, &c. Sailing Boats dependant on Wind.
Cows, Oxen, &c. ....	ditto	.....	43,462		
Sheep and Swine ....	ditto	.....	56,497		
Coals and Coke .....	Water	Canal & River Boats	166,567		
Lime, Stone, Iron, &c.	ditto	ditto	15,059		
Linseed Oil Cake, &c.	ditto	ditto	39,398		
Grain, Flour, and Malt	ditto	ditto	61,745		
Timber .....	ditto	ditto	32,110		
Wool, Flax, &c. ....	ditto	ditto	1,430		
Fruit and Vegetables ..	ditto	ditto	1,820		
General Merchandise ..	ditto	ditto	58,408		
Cows, Oxen, &c. ....	ditto	ditto	195		
Sheep and Swine ....	ditto	ditto	5,497		

### Tonnage Dues on the Ancholme Navigation in 1844.

At Ferryby.	For the use of the Navigation.	For each Lock passed through.
Coals, 3d. per chaldron .. .. .	1d. per chaldron per mile .. .. .	2d. per chaldron
Lime, 3d. per chaldron .. .. .	1d. per chaldron per mile .. .. .	0½d. per chaldron
Stone, 4d. per Ton .. .. .	0½d. per ton per mile .. .. .	0½d. per ton ..
Timber, Iron, &c. 4d. per ton .. .. .	1d. per ton per mile .. .. .	2d. per ton ..
Bricks or Tiles, 4d. per thousand .. .. .	1d. per thousand per mile .. .. .	2d. per thousand
Sand .. .. .	0½d. per ton per mile .. .. .	.....
Wheat, Rye, &c. 1d. per quarter .. .. .	0½d. per quarter per mile .. .. .	0½d. per quarter
Barley, Malt, &c. 1d. per quarter .. .. .	0½d. per quarter per mile .. .. .	0½d. per quarter
Merchandise, &c. 8d. per ton .. .. .	1d. per ton per mile .. .. .	4d. per ton
Manure, when exported only 2s. per ton		

### STATEMENT OF THE QUANTITY OF VARIOUS KINDS OF GRAIN AND MEAL BROUGHT INTO GREAT BRITAIN FROM IRELAND, IN EACH YEAR, FROM 1815 TO 1836.

Years.	Wheat and Wheat Flour.	Barley and Barley Meal.	Rye.	Oats and Oatmeal.	Indian Corn.	Beans.	Peas.	Total of Grain and Meal.
	Qrs.	Qrs.	Qrs.	Qrs.	Qrs.	Qrs.	Qrs.	Qrs.
1815	189,544	27,108	207	597,537	..	6,796	1,452	821,192
1816	121,631	62,254	43	683,714	..	6,223	1,372	873,865
1817	59,025	26,766	614	611,117	..	2,287	..	699,809
1818	106,230	25,887	2	1,069,885	..	4,845	..	1,207,851
1819	154,081	20,811	4	789,613	..	3,904	..	967,861
1820	404,747	87,096	134	916,250	1	8,893	..	1,417,120
1821	569,700	82,884	550	1,162,249	..	7,433	..	1,822,816
1822	465,004	22,532	353	569,237	..	7,963	..	1,063,089
1823	400,068	19,274	198	1,102,487	..	6,126	..	1,528,153
1824	356,408	45,872	112	1,225,085	..	6,547	..	1,634,024
1825	395,018	165,082	220	1,629,856	..	12,786	..	2,203,962
1826	314,851	64,885	77	1,303,734	..	7,190	1,452	1,692,189
1827	408,255	67,791	256	1,343,267	1765	10,037	1,372	1,829,743
1828	652,584	84,204	1424	2,075,631	280	7,068	4,944	2,826,135
1829	519,493	97,140	568	1,673,628	39	10,444	4,503	2,305,806
1830	529,717	189,745	414	1,471,252	28	19,053	2,520	2,212,729
1831	557,520	185,409	515	1,655,934	563	15,039	4,063	2,419,643
1832	572,586	123,068	294	1,590,321	3037	14,512	1,916	2,605,734
1833	844,201	107,519	167	1,762,519	117	19,108	2,645	2,736,281
1834	779,504	217,568	982	1,713,971	75	16,770	2,176	2,733,046
1835	661,773	156,176	614	1,813,101	..	24,234	3,447	2,659,345
1836	598,756	182,867	483	2,126,693	..	17,603	2,920	2,920,322

# EXCISE.

TOTAL QUANTITIES CHARGED, WITH DUTY OF EACH, OF THE FOLLOWING ARTICLES, IN ENGLAND, SCOTLAND, AND IRELAND, STATED THROUGHOUT IN IMPERIAL MEASURE.

ARTICLES.	1818.	1819.	1820.	1821.	1822.	1823.	1824.	1825.	1826.	1827.	1828.	1829.
Beer, including Strong, Table, Intermediate, and Imported.... in barrels	7,539,846	7,175,464	7,148,889	7,088,950	7,870,050	7,888,085	8,251,912	8,520,208	8,310,088	7,084,071	8,163,112	7,888,852
Do. Scotland..... do.	529,434	531,368	531,994	548,915	535,160	546,097	544,544	559,873	594,176	533,746	596,728	541,099
Bricks..... number	992,166,696	23,102,016	940,234,569	899,178,510	1,010,500,482	1,244,178,222	1,463,230,999	1,483,430,777	1,350,930,926	1,103,379,404	1,078,837,540	1,078,837,540
Do. Scotland..... do.	23,102,016	23,102,016	13,959,978	13,959,978	13,959,978	20,254,437	20,194,656	20,430,777	20,380,702	20,330,662	24,680,321	25,144,251
Tiles..... do.	87,892,029	85,898,854	81,924,626	71,177,755	72,000,656	70,036,720	85,716,445	96,654,985	96,654,985	88,801,157	75,701,076	74,008,717
Do. Scotland..... do.	2,791,721	2,791,721	2,791,721	2,791,721	2,791,721	2,791,721	2,791,721	2,791,721	2,791,721	2,791,721	2,791,721	2,791,721
Soap..... lbs.	75,019,937	76,098,889	79,319,638	85,038,810	90,360,009	97,911,460	97,911,460	99,888,737	93,308,948	101,379,403	108,448,552	109,057,182
Do. Scotland..... do.	10,566,718	9,731,788	10,146,585	10,714,062	10,114,576	11,187,868	11,028,368	11,644,912	10,590,192	12,145,884	12,771,719	13,066,677
Starch..... do.	4,302,137	4,255,064	4,384,403	4,624,069	5,782,313	5,175,692	4,925,422	6,074,513	5,085,097	6,756,586	6,998,246	6,834,574
Do. Scotland..... do.	212,746	294,346	217,223	226,496	338,086	561,802	561,802	560,001	494,755	601,631	707,584	812,353
Hides and Skins, tanned, tawed, and dressed in oil	46,140,919	46,542,555	44,857,228	45,128,080	46,285,871	51,350,941	56,448,600	55,247,351	46,323,053	48,347,128	50,994,723	46,510,314
Do. Scotland..... do.	183,718	180,247	181,626	157,962	174,560	189,951	189,951	181,032	137,931	112,000	133,865	129,599
Do. Ireland..... do.	4,453,025	4,801,286	4,384,726	4,282,190	4,684,219	5,622,688	6,319,963	6,088,697	5,806,427	5,778,368	6,037,141	6,012,151
Do. Scotland..... do.	1,113,243	1,070,750	887,303	903,465	840,127	701,682	840,127	736	486	—	289	555
Do. Ireland..... do.	10,846	10,846	26,063	26,063	27,728	38,441	51,876	6,897,002	7,339,031	7,328,636	7,479,358	7,320,788
Do. Scotland..... do.	3,452	3,452	3,794	3,360	4,094	3,688	3,825	11,294	6,418	7,269	7,393	8,829
Malt..... bushels	24,630,820	22,612,300	23,884,945	26,128,458	26,088,512	24,845,123	27,615,383	29,573,742	27,335,971	25,096,337	30,517,819	29,438,074
Do. Scotland..... do.	1,300,515	1,454,230	1,182,268	1,405,669	1,403,177	1,616,340	1,788,608	3,255,847	2,730,555	2,714,073	3,867,159	3,712,062
Do. Ireland..... do.	1,783,666	1,742,444	1,708,671	1,946,315	1,736,291	1,705,516	2,169,999	2,717,254	2,406,569	1,890,795	2,404,542	2,012,639
Candles, Tallow, Wax, and Spermaceti..... do.	78,009,136	83,571,728	84,557,115	89,814,469	94,353,910	98,457,110	105,304,191	108,908,817	104,751,768	109,573,960	112,369,944	110,573,728
Do. Scotland..... do.	4,005,128	4,753,428	4,681,513	4,864,720	4,513,340	4,899,364	5,445,914	6,251,480	6,258,280	6,006,550	6,900,769	6,732,815
Do. Ireland..... do.	7,510,116	7,071,612	6,832,881	7,007,373	7,841,562	7,921,465	7,688,014	10,331,384	12,076,753	14,131,139	15,703,672	17,688,317
Coffee..... do.	340,880	361,431	307,123	268,718	295,147	245,653	209,883	316,858	475,005	585,739	694,286	669,794
Do. Scotland..... do.	29,744,107	22,799,292	22,512,130	22,394,656	25,911,896	27,762,457	22,794,858	24,500,015	25,238,048	26,432,223	26,790,306	29,495,116
Do. Ireland..... do.	2,569,431	3,258,098	3,190,344	3,493,060	3,816,996	3,367,710	3,897,658	3,890,658	3,907,785	3,887,555	2,515,159	—
Paper..... do.	41,111,281	38,465,752	41,444,541	42,468,109	45,146,660	47,131,410	50,234,752	52,394,608	42,131,886	51,197,637	54,790,018	50,465,185
Do. Scotland..... do.	4,136,066	4,064,838	4,202,933	4,794,691	5,119,248	5,699,680	6,194,179	6,518,114	6,017,511	6,452,944	7,050,022	7,022,895
Do. Ireland..... do.	1,673,680	1,809,485	1,860,642	1,865,642	1,911,660	2,036,521	2,184,115	2,184,115	2,466,156	2,585,746	2,572,129	2,572,129
Millboard, Pasteboard, &c..... cwt.	34,187	30,448	31,611	32,807	35,530	36,517	36,517	42,322	31,146	37,751	42,322	37,751
Do. Scotland..... do.	3,189	3,079	3,294	3,294	3,294	3,593	3,593	4,168	4,168	4,302	4,302	4,302
Do. Ireland..... do.	327	312	283	196	222	122	126	882	284	128	310	321
Printed Goods, including Paper, Calicoes, Linens, and Silks..... yds.	94,806,153	75,381,350	91,829,644	93,438,030	99,711,738	104,490,681	120,434,322	124,122,601	86,469,598	128,132,328	120,701,266	110,804,140
Do. Scotland..... do.	17,577,210	12,500,098	14,897,644	16,252,244	18,000,076	19,022,634	24,718,463	24,718,463	15,034,127	22,880,548	25,994,976	26,114,366
Do. Ireland (Paper)..... do.	230,666	230,666	184,147	202,007	233,354	257,021	318,472	463,108	325,460	470,580	470,580	344,136
British Spirits..... gal.	4,870,066	3,839,257	3,997,466	3,830,015	4,346,348	4,607,253	4,607,253	4,607,253	4,607,253	4,607,253	4,607,253	4,607,253
Do. Scotland..... do.	1,931,795	1,752,044	2,229,456	2,229,456	2,070,556	2,352,728	2,352,728	2,352,728	2,352,728	2,352,728	2,352,728	2,352,728
Do. Ireland..... do.	3,427,475	2,087,213	2,068,010	2,600,559	2,269,592	2,254,525	2,254,525	2,254,525	2,254,525	2,254,525	2,254,525	2,254,525
Tobacco..... lbs.	12,313,916	11,456,556	11,757,991	11,062,399	11,510,113	11,875,237	11,875,237	12,700,726	12,944,812	13,579,065	12,960,357	13,020,235
Do. Scotland..... do.	1,696,885	1,599,546	1,577,993	1,466,202	1,519,109	1,854,069	1,854,069	1,900,432	1,860,476	1,860,476	1,860,476	1,860,476
Do. Ireland..... do.	4,185,192	3,463,313	2,580,894	2,607,896	3,323,571	3,608,014	3,752,604	4,160,049	3,598,628	4,041,171	4,041,171	4,125,296

# Traffic estimated to pass on the following Railways,

GIVEN IN EVIDENCE BY THE PROMOTERS BEFORE OBTAINING THEIR ACT.

NAME OF RAILWAY.	Passengers along the pro- posed line by Coaches, &c.	Number of Cattle.	Number of Sheep.	Number of Swine	Merchandise by Waggons, &c.	Merchandise by Water.	Agricultural Produce.	Coals by Land.	Coals by Water.
	No.	No.	No.	No.	Tons.	Tons.	Tons.	Tons.	Tons.
Birmingham and Derby Junction .....	145,749	7,254	27,105	..	14,547	188,006	11,401	..	..
Birmingham and Gloucester .....	210,125	4,033	5,304	..	29,020	..	..	..	..
Hull and Selby .....	195,662	..	..	..	..	93,873	..	..	..
Bristol and Exeter .....	170,205	15,000	85,000	..	33,618	22,025	38,318	..	60,000
Cheltenham and Great Western .....	245,013	13,104	55,510	..	31,845	..	..	..	..
Sheffield and Rotherham .....	175,109	..	..	..	36,374	166,223	..	..	..
North Midland .....	149,812	..	..	..	124,350	..	..	..	..
Midland Counties .....	255,424	..	..	..	12,948	67,732	..	..	285,000
Manchester and Leeds .....	207,688	..	..	..	109,486	189,020	..	..	60,452
York and North Midland .....	185,660	53,000	110,600	..	5,547	95,100	3,950	..	98,000
South Eastern (London and Dover) .....	317,252	..	..	..	63,079	63,216	..	..	..
Eastern Counties .....	1,449,736	50,000	433,300	20,000	274,775	..	..	..	85,917
London and Cambridge .....	591,344	111,956	533,520	..	72,214	223,600	..	..	..
Manchester and Cheshire .....	84,369	..	..	..	22,728	183,634	..	..	..
London and Brighton .....	226,444	..	..	..	43,765	..	18,200	76,500	..
Edinburgh, Leith, and Newhaven .....	3,877,131	..	..	..	282,326	..	..	..	..
Dundee and Arbroath .....	306,727	..	..	..	51,899	..	..	..	..
Blackwall .....	932,731	..	..	..	170,075	163,618	..	..	..
Great North of England (Harworth & York) .....	1,057,742	..	..	..	32,136	..	..	80,000	..
Chester and Crewe .....	75,158	20,000	28,000	..	17,378	104,948	..	..	..
Great Western .....	74,568	..	..	26,728	85,244	..	..	..	..
Great Western .....	404,924	..	..	..	13,011	..	..	..	..
Lancaster and Preston .....	106,957	..	..	..	84,050	..	..	..	..
Sheffield and Manchester .....	335,444	20,800	30,000	26,000	121,027	4,453	22,052	..	..
Glasgow and Ayr .....	597,470	..	..	..	52,052	..	..	..	..
Chester and Liverpool .....	169,684	..	..	..	..	..	..	..	..

*The comparative Cost of Goods and Passengers on Canals and upon Railroads, both with Horse and with Locomotive Power on the latter.*

CANALS.—HORSE POWER.				RAILROADS.—HORSE POWER.				RAILWAYS.—LOCOMOTIVE POWER.				
Rate of speed in miles per hour.	Resistance per ton in lbs.	Cost of Haulage and Boat Hire per ton per mile.	Cost of Conveyance per ton per mile.	Rate of speed in miles per hour.	Resistance per ton per mile.	Cost of Haulage and Carriages per ton per mile.	Cost of Conveyance per ton per mile.	Rate of speed in miles per hour.	Resistance per ton in lbs.	Cost of Haulage and Carriages per ton per mile.	Cost of Conveyance per ton per mile.	Charges of Conveyance per ton per mile.
2½	2-73	0-5d.	1-36d.	2½	8-5	0-75d.	1-65d.	8	8-5	0-565d.	1-065d.	1-065d.
4	7-07	1-16d.	3-5d.	4	8-5	1-127d.	3-627d.	12	8-5	0-727d.	2-138d.	1-565d.
10	56-8	0-275d. per passenger, 3-3d. per ton.	1-08d. per passenger, 13-25d. per ton.	10	8-5	0-25d. per passenger, 2-24d. per ton.	1 to 1-5d. per passenger, 15d pr. ton	20	8-5	0-25d. Haulage, 0-25d. per passenger, 0-73d. per ton.	0-675d. per passenger, 2-855d. per ton.	1d. to 1½d. per passenger, 12-37d. per ton.

## THE COST OF CONVEYING GOODS AND PASSENGERS ON CANALS,

At different rates of Speed.

Description of Boats.	Rate of Speed in miles per hour.	Resistance, per ton, in lbs.	Cost of Haulage per ton per mile.	Cost of Boat-hire, &c per ton per mile.	General Expenses per ton per mile.	Aggregate Charges.	
						Useful Load per ton per mile.	Gross Load per ton per mile.
Slow Boats .....	2½	2-73	D. 0-18	D. 0-32	D. 0-86	D. 1-36	D. 1-02
Fly Boats .....	4	7-07	0-5	0-66	2-34	3-5	2-275
Swift Boats .....	10	56-8	0-275 per passenger, 3-5 per ton.	....	9-7	1-08 per passenger, 13-25 per ton.	10. per ton.

### THE FOLLOWING TABLE

Exhibits the quantities of White and Rock Salt sent down the river Weaver in each year from 1803 to 1835. If to the quantity here stated 100,000 tons of white salt are added annually for the produce of springs in other counties, and for that part of the Cheshire Salt which is not sent to Liverpool, it is probable that the total produce of this mineral in England will be very nearly ascertained.

Years.	Rock Salt.	White Salt.	Total.	Years.	Rock Salt.	White Salt.	Total.
	Tons.	Tons.	Tons.		Tons.	Tons.	Tons.
1803	57,699	122,537	180,236	1820	82,956	188,808	271,764
1804	57,087	126,776	183,862	1821	91,867	147,822	239,689
1805	60,830	180,498	241,328	1822	110,785	151,431	262,216
1806	52,620	157,124	209,744	1823	125,658	170,401	296,059
1807	54,187	180,165	234,352	1824	121,459	162,365	283,824
1808	47,916	123,698	171,609	1825	89,551	252,876	342,427
1809	63,520	192,590	256,110	1826	51,522	232,028	283,528
1810	50,564	205,900	256,364	1827	45,829	271,535	317,364
1811	49,277	120,487	169,764	1828	66,888	289,225	356,108
1812	54,140	159,364	213,504	1829	82,830	321,462	404,292
1813	47,280	149,074	196,304	1830	97,077	336,245	433,322
1814	101,075	233,249	334,324	1831	90,742	801,679	892,421
1815	88,741	236,373	325,114	1832	94,400	345,896	440,296
1816	74,286	121,728	196,014	1833	95,706	383,669	479,375
1817	59,446	148,709	208,155	1834	82,179	376,220	458,399
1818	93,582	214,931	308,513	1835	61,505	298,543	360,048
1819	85,935	179,939	265,874				

#### *Quantity of Coals passing by Inland Navigation and by Rail-Roads in different parts of the Country, in 1816.*

In Yorkshire .....	967,406	chaldrons, or 2,563,626 tons.
Derbyshire .....	355,554	" 942,218 "
Nottinghamshire .....	186,666	" 494,666 "
Leicestershire .....	66,666	" 176,666 "
Warwickshire .....	162,962	" 431,849 "
Staffordshire .....	300,000	" 795,000 "

Quantity that passes towards the Eastern Sea ..... 5,404,023 tons.  
 An equal quantity believed to pass towards the West and South ..... 5,404,023 tons.

Quantity carried by Canals and Railways ..... 10,808,046 tons.

#### *An Account of the Inland Navigation to and from Liverpool, For the Years 1786, 1787, and 1788.*

On the Lancashire end of the Leeds Canal there were employed, between Liverpool and Wigan, eighty-nine Boats, of thirty-five to forty tons burthen each; which brought to Liverpool in the years—

			1786.	1787.	1788.
viz.	Coals .....	Tons.	91,249	98,248	109,202
	Flags, Slates, and Millstones .....	Do.	3,944	2,561	3,613
	Merchandise .....	Do.	347	393	405
	Oak Timber .....	Feet.	17,403	17,966	13,589
Took from thence—	Merchandise .....	Tons.	3,886	4,610	4,257
	Limestone and Bricks .....	Do.	2,245	2,064	1,429
	Lime and Manure .....	Do.	10,213	11,129	12,224
	Pine Timber .....	Feet.	160,760	198,706	153,006
Between Liverpool and the river Douglas 36 boats were employed, which brought					
And took back	Coals .....	Tons.	16,724	22,592	20,706
	Limestone .....	Do.	4,589	6,164	5,921
The tonnage of the vessels employed on the Sankey Canal, the business of which was divided between Liverpool, Northwich, and Warrington, amounted to .....		Tons.	74,289	98,356	115,828

Between Liverpool on the river Mersey, and Northwich and Winsford on the Weaver, 110 vessels were employed in carrying timber, salt, coals, and merchandise, to the amount of 164,000 tons annually.

Between Liverpool and Manchester there were employed, on the old navigation, twenty-five boats of fifty-five tons each, which made generally three trips every two spring tides; or, upon an average, allowing for delays from bad weather, thirty-six trips each in a year.

There were also on the Duke of Bridgewater's canal, which communicates with the Staffordshire canal, forty-two boats employed, of fifty tons each, which made on an average three trips to Liverpool every fourteen days: ten boats were added to this part of the navigation in the summer.

# QUANTITIES OF SUGAR

OF THE SEVERAL SORTS RETAINED FOR CONSUMPTION WITHIN THE UNITED KINGDOM, WITH THE NET REVENUE ACCRUING THEREFROM, IN EACH YEAR FROM 1815 TO 1840 INCLUSIVE.

Years.	Total Quantity Imported.	Quantities of Sugar retained for actual Consumption in the United Kingdom.				Net Revenue from Duties on Sugar.	Average Prices of British Muscovado Sugar	
		British Plantation.	East India.	Foreign.	Total Quantity retained for Home Consumption.		From the London Gazette.	
	CWTS.	CWTS.	CWTS.	CWTS.	CWTS.	£	s.	d.
1815	4,134,335	2,131,030	43,041	37,228	2,211,299	3,454,333	61	10
1816	3,880,149	2,446,458	33,980	49,493	2,529,931	3,612,193	48	7
1817	3,911,161	3,267,034	27,332	4,575	3,298,941	4,433,926	49	8
1818	4,075,806	1,701,421	25,056	419	1,726,896	2,751,107	50	0
1819	4,198,515	2,720,609	100,046	245	2,820,900	3,996,543	41	4
1820	4,209,676	2,816,788	84,795	281	2,901,864	3,925,387	36	2
1821	4,373,166	2,936,411	120,203	268	3,056,882	4,188,958	33	2
1822	3,774,382	2,851,678	137,092	287	2,989,057	4,060,444	31	0
1823	4,201,706	3,125,907	102,901	183	3,228,991	4,407,410	32	11
1824	4,412,650	3,214,701	152,673	50	3,367,424	4,641,904	31	6
		British Plantation and Mauritius.	British East India.					
1825	3,908,135	2,972,623	107,200	25	3,079,848	4,176,655	38	6
1826	4,419,095	3,430,652	143,312	26	3,573,990	4,960,991	30	7
1827	4,110,018	3,270,885	69,856	186	3,340,927	4,650,192	35	9
1828	4,968,020	3,504,164	97,244	11	3,601,419	5,002,297	31	8
1829	4,856,393	3,421,409	118,400	12	3,539,821	4,896,242	28	7
1830	4,916,004	3,590,041	131,979	24	3,722,044	4,767,342	24	11
1831	5,366,262	3,667,396	113,536	79	3,781,011	4,650,590	23	8
1832	4,867,749	3,575,329	79,600	605	3,655,534	4,394,338	27	8
1833	4,739,292	3,553,450	98,283	71	3,651,804	4,414,302	29	8
1834	4,743,414	3,620,522	121,007	50	3,741,579	4,559,392	29	5
1835	4,448,267	3,757,851	98,680	31	3,856,562	4,667,900	33	5
1836	4,649,161	3,878,144	110,522	33	3,988,399	4,184,165	40	10
1837	4,482,578	3,684,712	270,055	43	3,954,810	4,760,565	34	7
1838	5,030,374	3,491,225	418,375	65	3,909,665	4,656,892	33	8
1839	4,678,219	3,348,298	477,252	49	3,825,599	4,586,936	39	2
1840	4,035,845	3,074,198	518,320	2,316	3,594,834	4,449,070	49	1

The following Table shews the average Expense of Working the Liverpool and Manchester Railway, from the Year 1831 to 1834.

Heads of Charge.	Merchandise per ton per mile.		Passengers.		Aggregate Cost per ton per mile.	
	Useful load or of goods.	Gross Load.	Per Passenger per mile.	Per ton per mile gross.	Useful load or of goods.	Gross load.
	D.	D.	D.	D.	D.	D.
Locomotive Power.....	0.55	0.36	0.27	0.73	0.73	0.51
Maintenance of Railway.....	0.307	0.233	0.085	0.233	0.307	0.233
Coaching .. { Upholding Carriages.....	....	....	0.054	0.146	0.082	0.058
{ Conducting Coaching.....	....	....	0.104	0.282	0.158	0.111
{ Duty on Passengers.....	....	....	0.071	0.216	....	....
Carrying { Upholding Waggon.....	0.227	0.159	....	....	0.094	0.067
{ Conducting Traffic.....	1.08	0.76	....	....	0.463	0.324
General Expenses.....	0.354	0.248	0.091	0.248	0.354	0.248
Total Cost.....	2.518	1.760	0.675	1.855	2.188	1.551

The Annual Cost of Private Railways, deduced from the Cost upon the Stockton and Darlington, the Seaham and Clarence, and other Railways.

Heads of Charge.	Cost per ton per mile.	
	Useful Load.	Gross Load.
	D.	D.
Locomotive Power, or Haulage.....	0.380	0.191
Maintenance of Railway.....	0.208	0.104
Upholding Waggon, including loading and unloading Coals.....	0.265	0.133
General Expenses.....	0.100	0.051
Total Cost.....	0.953	0.479

*The Operation of the Copper Produce of Foreign Ores upon our Foreign Copper Trade.*

**COPPER EXPORTED:—**

Years ending	Wrought.	Unwrought.		Total.
	To all parts.	To India.	To all parts.	To all parts.
	TONS.	TONS.	TONS.	TONS.
5th January, 1825 .....	..	..	960	
1826 .....	..	..	180	
1827 .....	..	..	1329	
1828 .....	..	..	1079	
1829 .....	..	..	2682	8,009
1830 .....	5327	1801	8150	9,322
1831 .....	6172	2317	3714	8,885
1832 .....	5171	2423	4569	10,424
1833 .....	5855	2312	4019	9,436
1834 .....	5417	1769	5283	10,072
1835 .....	4787	2104	5935	11,883
1836 .....	5948	1993	3909	10,014
1837 .....	6105	1588		

**PRODUCTION OF COPPER IN GREAT BRITAIN:—**

Years.	Ores.	Metal.
	TONS.	TONS.
1771—1781 .....	28,185	3,380
1781—1791 .....	32,854	4,123
1791—1801 .....	48,034	4,083
1801—1811 .....	67,533	6,060
1811—1816 .....	78,237	7,181
1816 .....	83,058	7,045
1817 .....	75,016	6,608
1818 .....	80,525	6,714
1819 .....	92,234	7,214
1820 .....	92,672	7,364
1821 .....	96,903	8,163
1822 .....	106,723	9,331
1826 .....	128,459	.....
1827 .....	.....	12,381
1828 .....	153,600	12,169
1829 .....	.....	11,994
1830 .....	.....	13,097
1831 .....	.....	14,430
1832 .....	.....	14,463

*Quantity of Copper produced in the several Districts of Great Britain and Ireland.*

With Ores from	1828.	1829.	1830.	1831.	1832.
	TONS.	TONS.	TONS.	TONS.	TONS.
Cornwall .....	1,966	9,763	10,890	12,218	12,099
Devonshire .....	434	318	368	312	249
Other parts of England .....	71	36	10	31	42
Island of Anglesa .....	738	901	815	809	852
Other parts of Wales .....	259	172	237	123	237
Ireland .....	706	790	768	972	974
Isle of Man .....	....	4	9	15	12
Total Copper from the Ores of the United Kingdom .....	12,169	11,994	13,097	14,430	14,465
Copper smelted from Foreign Ores .....	....	30	124	100	56
General Total .....	12,169	12,024	13,221	14,530	14,521

**STATISTICS OF COPPER FOR CORNWALL IN 1837.**—The total quantity of ore sold was 142,089 tons (of 21 cwt.), yielding an average produce of eight per cent.; the quantity of fine copper being 11,209 tons 1 cwt., and the average price of the ore £5 18s. 6d.; the total amount of the sales for the twelve months being £822,516. The standard upon the 5th of January was £127 10s.; this was the highest for the year. Upon the 22nd of June it was at the lowest, being only £93 18s. It went up again to £120 10s. upon the 5th of October; but declined with some slight fluctuation to £107 18s. upon the 23rd of December. The largest quantity sold at any one ticketing, was 4,670 tons, upon the 4th of May; and the smallest 1,068, upon the 17th of August. The highest produce was nine and five-eighths per cent., upon the 13th of July; and the lowest, seven, upon the 26th of January. The greatest weekly total was £25,887, upon the 2nd of November; and the least £5694, upon the 17th of August. The average sum per week was £18,817.

*Table of the Produce of Copper Ores and Fine Metal in Cornwall,  
From 1800 to 1830.*

Years.	Ores.	Metal.	Value of Ore.	Metal.	Average Standard.
	Tons of 21 Cwts.	Tons. Cwt.	£ s. d.	Per Cent. of Ore.	Price per Ton. £ s. d.
1800	55,981	5187 0	550,925 0 0	9½	133 3 6
1801	56,611	5269 0	476,313 0 0	9½	117 8 0
1802	55,937	5228 15	445,094 0 0	9½	110 18 0
1804	64,637	5374 18	507,841 11 0	9½	136 5 0
1806	79,239	6863 10	730,845 6 0	8½	138 5 0
1808	67,867	6795 13	495,303 10 0	10	100 7 0
1810	66,148	5682 19	570,035 8 0	8½	132 5 0
1812	71,547	6720 7	549,665 6 0	9½	111 0 0
1814	74,322	6369 13	627,501 10 0	8½	130 12 0
1816	77,334	6597 4	447,959 17 0	8½	98 13 0
1818	86,174	6849 7	686,005 4 0	7½	134 15 0
1820	81,473	7508 0	602,441 12 0	8½	113 15 0
1822	104,523	9140 8	663,085 13 0	8½	104 0 0
1824	99,700	7823 15	587,178 0 0	7½	110 0 0
1826	117,308	9026 12	788,971 15 0	7½	123 3 0
1828	130,366	9921 1	756,174 16 0	7½	112 7 0
1829	124,502	9656 10	717,334 0 0	7½	109 14 0
1830	143,296	11,224 19	887,900 0 0	7½	114 4 0
1834	150,617	12,271 14	898,402 15 0	8½	106 11 0
1835					

*Produce of Copper Mines in Cornwall (on the authority of John Taylor, Esq., F.R.S.)*

Years.	Ore.	Metal.	Value.	Produce.	Standard.
	Tons.	Tons.	£ s. d.	Per Cwt.	
1831	144,402	12,044	806,090 15 6	8½	100
1832	137,357	11,948	825,612 6 0	8½	100
1833	138,300	11,191	858,708 10 0	8½	111
1834	143,296	11,226	887,902 9 0	7½	114
1835	150,617	12,270	898,402 14 0	8½	106
1836	140,981	11,647	957,752 8 6	8½	115
1837	140,753	10,832	908,613 15 0	7½	120

### THE AVERAGE RATES CHARGED BY THE CARRIERS

FOR THE CARRIAGE OF GOODS OR MERCHANDIZE, &c. AND TIME OCCUPIED EACH TRIP IN 1845.

	s. d.	s. d.	s. d.	s. d.
From Blackburn to Colne 16 Miles 0 11	per hundred weight, or	1½	per ton per mile, time occupied, 9 hours.	
Ditto to Burnley 10 ditto 0 7½	ditto	1 3	ditto ditto	6 ditto.
Ditto to Accrington 5 ditto 0 4	ditto	1 4	ditto ditto	2½ ditto.
Ditto to Haslingden 10 ditto 0 6½	ditto	1 1	ditto ditto	4½ ditto.
Burnley to Colne 6 ditto 0 4	ditto	1 1½	ditto ditto	3 ditto.
Ditto to Accrington 5 ditto 0 4½	ditto	1 6	ditto ditto	3 ditto.
Ditto to Haslingden 10 ditto 0 5	ditto	0 10	ditto ditto	4½ ditto.
Manchester to Burnley 24 ditto 0 11	ditto	0 9½	ditto ditto	24 ditto.
Ditto to Blackburn 24 ditto 1 0	ditto	0 10	ditto ditto	24 ditto.

*Quantities of Coal brought Coastwise and by Inland Navigation into the Port  
of London, during the Years 1841 and 1842.*

	Ships, 1841.	Ships, 1842.	Tons, 1841.	Tons, 1842.
Newcastle.....	3,849	3,590	1,246,710	1,164,882
Sunderland.....	2,801	2,448	837,770	725,132
Stockton.....	2,019	2,047	562,531	562,302
Blythe and Seaton Sluice.....	872	408	98,591	100,234
Leith and other Ports of Scotland.....	229	201	25,634	19,454
Swansea and other ports of Wales.....	244	249	74,815	73,669
Hull, Goole, Gainsborough, and other Yorkshire and Lincolnshire ports.....	678	703	66,705	69,512
Sundry places, small coal, &c.....	..	35	..	4,945
Quantity which passed the Boundary Stone on the Grand Junction Canal at Grove Park, Herts, and the River Thames, at Staines..	5	..	418	31,519
Total.....	10,272	9,691	2,902,674	2,764,719

# **PRODUCE OF THE CORNISH TIN MINES,** In each Year from 1750 to 1834.

Year. Tons.	Year. Tons.	Year. Tons.	Year. Tons.
1750..2,876	1772..3,159	1793..3,202	1814..2,611
1751..2,273	1773..2,852	1794..3,351	1815..2,941
1752..2,550	1774..2,458	1795..3,440	1816..3,348
1753..2,516	1775..2,619	1796..3,061	1817..4,120
1754..2,714	1776..2,652	1797..3,240	1818..3,745
1755..2,757	1777..2,770	1798..2,820	1819..3,068
1756..2,774	1778..2,515	1799..2,862	1820..2,775
1757..2,752	1779..2,678	1800..2,522	1821..3,132
1758..2,720	1780..2,926	1801..2,328	1822..3,187
1759..2,637	1781..2,610	1802..2,627	1823..4,031
1760..2,717	1782..2,546	1803..2,914	1824..4,819
1761..2,395	1783..2,570	1804..2,993	1825..4,170
1762..2,684	1784..2,685	1805..2,742	1826..4,406
1763..2,736	1785..2,885	1806..2,855	1827..5,315
1764..2,618	1786..3,399	1807..2,426	1828..4,696
1765..2,757	1787..3,204	1808..2,330	1829..4,390
1766..3,055	1788..3,352	1809..2,508	1830..4,183
1767..2,850	1789..3,405	1810..2,006	1831..4,093
1768..2,667	1790..3,193	1811..2,384	1832..3,988
1769..2,898	1791..3,470	1812..2,373	1833..3,791
1770..2,977	1792..3,809	1813..2,324	1834..4,180
1771..2,823			

# **Iron Produced in England and Scotland,** IN THE YEARS 1823, 1825, 1828, & 1830.

	1823.	1825.	1828.	1830.
South Wales .....	182,325	223,520	279,512	277,643
Staffordshire .....	138,690	171,735	219,492	212,604
Shropshire .....	57,923	86,320	81,224	73,418
Yorkshire .....	27,311	35,308	32,968	28,926
Scotland .....	24,500	29,200	37,700	37,500
Derbyshire .....	14,088	19,184	22,360	17,999
North Wales .....	—	13,100	25,168	—
Other places .....	2,379	3,000	4,160	5,327
Tons .....	442,066	581,367	702,584	653,417

# **COAL BROUGHT INTO MANCHESTER** In 1834, 1836, 1840.

	1834.	1836.	1840.
	Tons.	Tons.	Tons.
By Canals .....	463,238	579,728	637,830
By Turnpike Roads and Railways .....	273,770	334,263	396,260
Total .....	737,008	913,991	1,034,090

# **Produce of the Cornish Copper Mines,** From 1771 to 1786, and from 1796 to 1834.

Year. Tons.	Year. Tons.	Year. Tons.	Year. Tons.
1771..3,347	1785..4,434	1808..6,795	1822..9,331
1772..3,356	1786..4,787	1809..6,821	1823..7,928
1773..3,350	1796..4,950	1810..5,682	1824..7,824
1774..3,680	1797..5,210	1811..5,948	1825..8,226
1775..3,595	1798..5,600	1812..7,248	1826..9,026
1776..3,582	1799..4,923	1813..8,166	1827..10,311
1777..3,586	1800..5,187	1814..7,936	1828..9,921
1778..3,965	1801..5,267	1815..6,607	1829..9,656
1779..3,734	1802..5,228	1816..7,045	1830..10,748
1780..2,932	1803..5,616	1817..6,608	1831..12,043
1781..3,450	1804..5,374	1818..6,714	1832..11,947
1782..3,375	1805..6,234	1819..7,214	1833..11,191
1783..4,296	1806..6,863	1820..7,864	1834..11,224
1784..4,396	1807..6,716	1821..8,163	

# **Number and Weight of Hides, tanned and untanned, imported in the five years ending 1829, with the amount of duty in each year.**

	Untanned.		Tanned.		Duty.
	Number	Cwts.	Number	lbs.	
1825..	540	303,850	6,598	53,131	46,948
1826..	86	194,243	1,960	62,313	26,239
1827..	98	152,434	1,566	103,808	28,539
1828..	182	225,975	7,621	103,876	37,353
1829..	..	286,416	8,199	91,515	39,767

# **Yearly Imports of Cotton into Liverpool,** From 1807 to 1841, inclusive, (in Bags.)\*

Years.	Imports.	Years.	Imports.	Years.	Imports.
1807	196,467	1819	366,186	1831	793,367
1808	66,215	1820	458,693	1832	778,785
1809	267,283	1821	413,151	1833	843,859
1810	320,421	1822	453,903	1834	839,951
1811	170,133	1823	578,547	1835	769,579
1812	171,581	1824	447,990	1836	1,023,263
1813	143,394	1825	706,305	1837	1,034,144
1814	182,345	1826	489,256	1838	1,328,758
1815	273,560	1827	756,306	1839	1,017,800
1816	276,930	1828	631,359	1840	1,414,977
1817	314,181	1829	641,362	1841	1,167,948
1818	425,395	1830	793,411		

\* In 1755 the import of Cotton into Liverpool from America, was only 5 bags; in 1786, 6 bags; and in 1787, 108 bags.

# **Statement of the Quantity of Coals Shipped Coastwise from Ports of Great Britain to other Ports of Great Britain, to Ireland, to the British Colonies, and to Foreign Countries, in each year from 1819 to 1835.**

Years.	To ports in Great Britain.	To Ireland.	To British Colonies.	To Foreign Countries.	To all parts.
	Tons.	Tons.	Tons.	Tons.	Tons.
1819	3,459,508	669,660	71,497	164,375	4,365,040
1820	3,947,908	606,400	90,447	158,672	4,803,427
1821	3,731,908	644,787	90,423	170,941	4,638,059
1822	3,810,239	694,024	111,822	172,754	4,788,839
1823	4,372,839	693,413	89,713	163,662	5,319,627
1824	4,308,571	691,429	99,575	179,617	5,279,192
1825	4,384,433	696,832	114,264	197,234	5,391,763
1826	4,730,307	779,584	123,437	223,219	5,856,547
1827	4,440,318	650,728	123,109	244,222	5,456,377
1828	4,507,935	740,071	128,092	227,709	5,603,807
1829	5,014,132	840,246	128,893	240,854	6,224,125
1830	..	..	145,204	357,288	*
1831	..	..	152,278	356,419	
1832	..	..	173,508	414,938	
1833	5,859,179	} +	192,082	442,366	6,493,627
1834	5,822,561		189,838	425,417	6,437,816
1835	6,117,993		189,722	546,338	6,854,053

\* In consequence of the repeal of the coasting duty on Coals, the Custom-house has ceased to keep any record of the shipments, and no return of the quantities in these years has been called for by Parliament.  
+ Including shipments to Ireland.

# **An Account of the Quantities of Butter, Cheese, and Eggs, imported into the Port of London from the Netherlands, during the Years 1829—30—31.**

Year..	Butter.			Cheese.			Eggs.
	Cwts.	qrs.	lbs.	Cwts.	qrs.	lbs.	
1829	115,002	1	4	91,624	2	22	4,221,960
1830	76,477	3	13	60,627	1	19	3,477,208
1831	79,797	0	22	93,057	2	17	6,761,666

*From the following Table of the Prices of Bar Iron in successive years, we may infer the successive rates of improvement and economy, with slight vicissitudes.*

Years.	Per Ton.				Years.	Per Ton.			
	£	s.	to	£	s.	to	£	s.	
1824	9	0	—	10	0	1830	5	5	6
1825	10	0	—	14	0	1831	5	5	10
1826	8	10	—	10	0	1832	5	0	5
1827	8	0	—	9	0	1833	5	10	6
1828	7	10	—	8	0	1834	6	0	6
1829	5	10	—	7	0	1835	5	10	7

The total production of Iron in Great Britain in the year 1836, was almost exactly one million of tons.

*Statement of the Quantities of Tea Imported into, Exported from, and Retained for Home Use, in the United Kingdom.*

Year.	From China.	From other Places.	Total.	Home Use.	Exported.
	lbs.	lbs.	lbs.	lbs.	lbs.
1832.....	31,708,956	60	31,709,016	31,548,381	266,399
1833.....	32,057,747	85	32,057,832	31,829,620	254,460
1834.....	32,029,052	1,614,928	33,643,980	34,969,651	1,181,005
1835.....	41,609,921	2,750,629	44,360,550	36,574,004	2,158,029
1836.....	48,520,508	787,193	49,307,701	49,142,236	4,269,863
1837.....	36,502,345	471,636	36,973,981	30,625,206	4,716,248
1838.....	38,998,872	1,415,142	40,413,714	32,351,593	2,577,877
1839.....	37,191,762	966,247	38,158,009	35,127,287	3,318,912
1840.....	22,576,405	5,465,477	28,021,882	32,262,628	2,383,384
1841.....	.....	.....	30,271,000	36,681,877	4,347,432

*Imports into the United Kingdom of Sugar, Molasses, Rum, Coffee, and Cocoa, from the West Indies and British Guiana, for the Years 1831 to 1841, both inclusive.*

Years.	Sugar.	Molasses.	Rum.	Coffee.	Cocoa.
	Cwt.	Cwt.	Gallons.	lbs.	lbs.
1831.....	4,103,800	323,306	7,844,157	20,030,802	1,491,947
1832.....	3,773,456	353,663	4,713,809	24,673,920	618,215
1833.....	3,646,205	686,794	5,109,975	19,008,375	2,125,656
1834.....	3,843,976	650,366	5,112,400	22,081,490	1,360,325
1835.....	3,524,209	507,495	5,453,317	14,855,470	439,447
1836.....	3,601,791	525,535	4,868,168	18,903,426	1,612,394
1837.....	3,306,775	575,657	4,418,349	15,577,888	1,847,145
1838.....	3,520,676	638,087	4,641,210	17,583,655	2,149,637
1839.....	2,824,372	474,307	4,021,820	11,485,675	999,641
1840.....	2,214,764	424,141	3,780,979	12,797,039	2,374,301
1841.....	2,151,217	430,221	2,770,161	9,927,689	2,920,298

*Quantities of Coals brought Coastways and by Inland Navigation, into the Port of London, during the Years 1836, 1837, and 1838.*

Ships.			From whence Shipped.	Tons.		
1836	1837	1838		1836	1837	1838
3,757	3,816	3,651	Newcastle .....	1,235,406	1,279,890	1,187,532
2,542	2,780	2,629	Sunderland .....	743,849	834,862	788,747
1,064	1,383	1,637	Stockton .....	268,222	370,380	424,454
285	282	328	Blythe and Seaton Sluice .....	71,775	71,856	76,178
157	154	278	Leith, Inverkeithing, Kirkcaldy, and other parts of Scotland ..	22,674	18,735	30,025
132	140	218	Swansea, Llanelly, Milford, and other parts of Wales ..	35,237	35,018	51,919
225	165	262	Hull, Goole, Gainsborough, and other places in Yorkshire ..	21,189	16,106	22,230
			Quantity which passed the Boundary Stone on the Grand Junction Canal, at Grove Park, Herts, and the River Thames at Staines .....	1,199½	2,324	1,685½
8,162	8,720	9,003	Total .....	2,399,551½	2,629,321	2,582,770½

A Statement of the Weight of Goods			Account of the Weight of Goods		
Carried on the Bridgewater Canal by sundry person's Vessels, between Liverpool and Manchester, (being exclusive of the goods carried by the Trustees' Vessels,) viz.			Carried by the Vessels of the Trustees of the late Duke of Bridgewater between Liverpool and Manchester, on the Duke of Bridgewater's Canal.		
Years.	From Manchester to Liverpool.	To Manchester from Liverpool.	Years.	From Liverpool to Manchester.	To Liverpool from Manchester.
	T. C. Q.	T. C. Q.		T. C. Q.	T. C. Q.
1815.....	12,827 19 0	35,195 9 1	1815.....	23,633 5 2	4,406 11 1
1816.....	8,643 0 2	30,929 15 1	1816.....	24,785 0 2	3,325 10 1
1817.....	11,036 10 1	32,552 9 2	1817.....	24 764 5 3	2,189 10 2
1818.....	11,192 9 0	38,131 17 1	1818.....	30,754 10 2	2,938 13 0
1819.....	8,705 4 3	41,832 8 0	1819.....	22,736 15 1	2,356 19 1
1820.....	8,437 14 3	44,887 8 2	1820.....	25,816 16 2	2,201 17 1
1821.....	11,036 18 2	49,121 17 2	1821.....	27,470 7 3	2,544 10 1
1822.....	11,609 4 0	44,981 17 2	1822.....	33,515 8 1	2,827 15 0
1823.....	10,417 18 3	59,975 1 1	1823.....	30,278 10 1	2,790 1 0
1824.....	12,767 10 1	69,625 5 3	1824.....	31,636 8 1	3,453 9 3
	106,574 9 3	447,833 9 3		275,591 3 2	29,034 17 2

*A Statement of the Weight of Goods carried on the Leigh Branch of the Duke of Bridgewater's Canal, between Liverpool and Manchester.*

Kenworthy.			Pickford & Co.		
Years.	From Castle Quay to Liverpool.	To Castle Quay from Liverpool.	From Castle Quay to Liverpool.	To Castle Quay from Liverpool.	
	T. C. Q.	T. C. Q.	T. C. Q.	T. C. Q.	
1821.....	1890 3 0	3203 2 0	451 3 3	1095 11 2	
1822.....	1812 12 0	3335 5 0	2163 11 8	3780 4 3	
1823.....	1529 16 3	3611 9 1	1268 18 1	2566 13 2	
1824.....	2408 8 3	4652 17 3	1632 9 2	2277 1 0	
	6881 0 2	14,802 14 0	5516 3 1	9719 10 8	

*Account, showing the Names of the several Carriers on the Canal of the Trustees of the late Duke of Bridgewater, of the dates they commenced, and the number of Vessels they employ.*

Carriers' Names.	Date when they commenced carrying.	Number of Vessels employed in May, 1825.
Grocers' Company.....	March 25th, 1811..	15 Vessels.
Manchester and Liverpool Union Company	November 1st, 1823	12 regular Flats, sometimes more, sometimes less, as the trade may require.
The Rochdale and Halifax Company .....	January 9th, 1824..	18 Vessels.
David Bellhouse and Sons .....	January 11th, 1823.	12 Flats regularly employed.
John Kenworthy, now Kenworthy & Son.	January 9th, 1821..	Four Narrow Boats.

NOTE.—There were also a considerable number of by-vessels which trade between Liverpool and various other places on the line of the Rochdale Canal through Manchester, and the line of the Duke of Bridgewater's Canals, as the state of the trade required.

John Kenworthy commenced carrying on the above Canal 29th January, 1821.—Pickford and Company commenced 8th October, 1821.—Pickford and Company discontinued 8th of December, 1824.

## TRADE WITH THE BALTIC.

### THE FOLLOWING VESSELS PASSED THE SOUND IN 1823:

British.....	4,381	Hanoverians .....	570	Oldenburghers .....	43
Prussians .....	2,257	Russians .....	417	Hamburgers .....	23
Swedes .....	1,289	Americans .....	216	Portuguese .....	8
Dutch .....	1,111	French .....	129	Sardinians .....	2
Norwegians .....	1,085	Lubeckers .....	117		
Danes .....	907	Bremeners .....	60		
Mecklenburghers.....	648			Total.....	13,263

## CONSUMPTION OF COALS IN LONDON.

A STATEMENT OF THE ADJUSTED IMPORTATION OF COALS TO LONDON SINCE 1801, AND THE PROBABLE POPULATION IN EACH YEAR, FOR THE SAKE OF SHOWING THE CONSUMPTION PER HEAD. THE CONSUMPTION IN 1801 APPEARS SMALL, BECAUSE THE IMPORT OF 1800 WAS VERY LARGE. (FROM MR. CHARLES PERKINS' EVIDENCE BEFORE THE LORDS' COMMITTEE.)

	Chaldrons of Coals.	Population.		Chaldrons per Head.
1801	859,788	818,129	Census of 1801	1.05
1802	881,031	831,628	.. .. .	1.06
1803	902,324	845,127	.. .. .	1.07
1804	923,617	858,626	.. .. .	1.07
1805	944,910	872,125	.. .. .	1.08
1806	966,203	885,624	Presumed annual Rate of increase about 1.65 per cent	1.09
1807	987,496	899,123	.. .. .	1.09
1808	1,008,789	912,622	.. .. .	1.105
1809	1,030,082	926,121	.. .. .	1.112
1810	1,051,375	939,620	.. .. .	1.118
1811	1,072,668	953,276	Census of 1811	1.12
1812	1,093,959	972,184	.. .. .	1.125
1813	1,115,252	991,249	.. .. .	1.125
1814	1,136,546	1,010,314	.. .. .	1.124
1815	1,117,034	1,029,379	Presumed annual Rate of Increase about 2 per cent	1.08
1816	1,149,650	1,048,444	.. .. .	1.09
1817	1,182,266	1,067,509	.. .. .	1.107
1818	1,214,882	1,086,574	.. .. .	1.118
1819	1,247,498	1,105,639	.. .. .	1.127
1820	1,280,114	1,124,704	.. .. .	1.18
1821	1,312,730	1,144,531	Census of 1821	1.146
1822	1,345,345	1,163,596	.. .. .	1.156
1823	1,377,961	1,182,661	.. .. .	
1824	1,410,577	1,201,726	Presumed that the same Rate of annual Increase has continued	
1825	1,443,193	1,220,791	.. .. .	
1826	1,475,809	1,239,856	.. .. .	
1827	1,508,425	1,258,921	.. .. .	
1828	1,541,041	1,277,936	.. .. .	
	32,580,515	28,868,085		

The total Import of Coal in twenty-eight years has been 32,580,515 Chaldrons; the Import in each year has occasionally been over or under the proper quantity; the amount, therefore, against each year, in the foregoing Table, has been an apportioned one, to ascertain, so nearly as possible, the consumption of Coal per head per annum. On the gross average, if 28,868,085 persons consume 32,580,515 chaldrons, each person consumes one chaldron and 12.000ths.

## THE FOLLOWING TABLE

Exhibits the Quantities of Coals Shipped Coastwise, and Exported to Foreign Countries at the different Ports in 1839.

ENGLAND.	Coastways.	Exported.	SCOTLAND.	Coastways.	Exported.
	Tons.	Tons.		Tons.	Tons.
London.....	26,640	26,640	Leith.....	30,459	18,363
Portsmouth.....	2,940	230	Borrowstounness.....	126,183	33,029
Bristol.....	3,710	6,874	Grangemouth.....	69,383	11,151
Gloucester.....	74,786	3,058	Kirkcaldy.....	46,960	7,138
Cardiff.....	145,057	4,879	Greenock.....	1,389	16,011
Newport.....	470,820	13,935	Port-Glasgow.....	18	3,768
Swansea.....	486,792	25,684	Glasgow.....	101,038	20,733
Llanelli.....	141,839	24,890	Irvine.....	248,417	19,224
Milford.....	63,221	.....	Ayr.....	73,457	151
Chester.....	88,111	3,921	Other Ports.....	2,044	994
Liverpool.....	.....	103,630			
Fleetwood.....	22,686	107			
Whitehaven.....	439,183	22,616		699,348	130,565
Carlisle.....	50,141	2,432			
Berwick.....	1,259	1,372			
Newcastle.....	2,159,321	558,052			
Sunderland.....	918,960	370,620	IRELAND.		
Stockton.....	1,308,778	111,707	Dublin.....	225	1,329
Hull.....	13,285	28,426	Other Ports.....	1,813	2,386
Goole.....	132,475	4,802			
Other Ports.....	3,208	2,162		2,088	3,715
	6,521,577	1,315,137	Totals.....	7,223,013	1,449,417

Of the 7,223,013 tons shipped coastways, 336,968 tons consisted of culm, which was sent almost wholly from Swansea, Llanelli, and Milford, and 18,015 tons of cinders, chiefly from Newcastle. All coal sent coastways by sea was, in the reign of Wm. III. subjected to a tax of 5s. per chaldron, which, during the late war, was raised to 5s. 4d.; it was reduced in 1824 to 6s., and in 1831 it was repealed; in 1830 the revenue yielded by this tax amounted to £1,021,862.

*Difference of Prices of Carriage of Goods by Canal and Land, in 1792.*

	BY CANAL.			BY LAND.		
	PER TON.			PER TON.		
	£	s.	d.	£	s.	d.
Between Gainsborough and Birmingham .....	1	10	0	0	0	0
" Manchester and Etruria, the centre of the Potteries .....	0	15	0	2	15	0
" Ditto and Bromley Common, three miles to Litchfield .....	1	0	0	4	0	0
" Land carriage from thence to Litchfield .....	0	0	0	0	2	6
" Ditto and Shardlow, six miles from Derby .....	1	10	0	3	0	0
" Land carriage from Shardlow to Derby .....	0	0	0	0	5	0
" Ditto and ditto, twenty miles from Leicester .....	1	10	0	6	0	0
" Land carriage ditto to ditto, twenty miles .....	0	0	0	0	16	8
" Ditto and Nottingham .....	2	0	0	4	0	0
" Ditto and Newark .....	2	0	0	5	6	8
" Ditto and Wolverhampton .....	1	5	0	4	13	4
" Ditto and Birmingham .....	1	10	0	4	0	0
" Ditto and Stourport .....	1	10	0	4	13	4
" N.B. Packs of Wool and Pockets of Hops, being very bulky articles .....	2	0	0	0	0	0
" Liverpool and Etruria .....	0	13	4	2	10	0
" Ditto and Bromley Common .....	1	0	0	0	0	0
" Ditto and Shardlow .....	1	10	0	0	0	0
" Ditto and Nottingham and Newark .....	2	0	0	0	0	0
" Ditto and Wolverhampton .....	1	5	0	5	0	0
" Ditto and Birmingham .....	1	10	0	5	0	0
" Ditto and Stourport .....	1	10	0	5	0	0
" Chester and Wolverhampton .....	1	15	0	3	10	0
" Ditto and Birmingham .....	2	0	0	3	10	0
" Ditto and Stourport .....	2	0	0	3	10	0
The freight between Gainsborough and Shardlow, (being the junction of the canal with the Trent,) and between Bristol and Stourport, (being the junction of the canal with the Severn) will be about, per ton .....						
N.B.—The above prices are only for perishable goods, those not perishable, will be carried at a lower price.						
" Forth and Clyde, the whole distance from sea to sea, or twopence per mile per ton ..	0	5	10	0	0	0

**IRON MADE WITHIN THE KINGDOM,**

WITH PARLIAMENTARY RETURNS FOR THE QUANTITIES IMPORTED AND EXPORTED.

Year.	British Iron made.	Foreign Iron used.	British Iron Exported.	Hardwares Exported.	Remained for Home Use.
	TONS.	TONS.	TONS.	TONS.	TONS.
1806 .....	258,000	27,411	36,925	4,629	243,857
1823 .....	452,000	9,667	45,413	10,375	404,879
1825 .....	581,000	14,977	34,372	10,980	550,625
1828 .....	703,000	13,384	65,139	12,100	639,745
1835 .....	1,000,000	17,571	199,007	20,157	798,367
1836 .....	1,200,000	18,920	192,352	21,072	1,005,496
1840 .....	1,500,000	18,263	268,323	14,995	1,229,940
1841 .....	1,500,000	17,653	360,875	17,667	1,139,111

*The whole number of Cattle, Horses, Sheep, and Pigs sent from Ireland to the various ports of England and Scotland, in different years from 1801 to 1825, was as under:—*

	1801.	1805.	1809.	1813.	1817.	1821.	1825.
Cattle .....	31,543	21,962	17,917	48,973	45,301	26,725	63,519
Horses .....	669	4,114	3,264	3,904	848	2,392	3,130
Sheep .....	2,879	10,938	7,572	7,503	29,460	25,310	72,761
Pigs .....	1,968	6,383	4,712	14,521	24,193	104,501	65,919

*The numbers sent to Liverpool and Bristol alone, in 1831 and 1832, were:—*

	LIVERPOOL.		BRISTOL.	
	1831.	1832.	1831.	1832.
Cattle .....	91,911	71,318	6,078	4,077
Horses and Mules .....	539	708	159	190
Sheep .....	160,487	98,387	11,640	4,446
Pigs .....	156,001	149,090	84,107	85,619

**BUSHEL of ROCK and WHITE SALT,**

Exported in each Year from 1827 to 1834.

Year.	Busbels.	Years.	Busbels.
1827.....	7,475,025	1831.....	9,332,214
1828.....	8,993,124	1832.....	10,561,861
1829.....	10,574,351	1833.....	11,670,434
1830.....	10,499,778	1834.....	11,093,674

Of the quantity exported in the last of these years, (1834),

Russia took .....	1,206,910 bushels.
Denmark .....	795,060 "
Prussia .....	971,780 "
Holland .....	514,340 "
Belgium .....	619,228 "
Sweden and Norway.....	252,735 "
Germany.....	304,602 "
British North American Colonies	1,970,236 "
United States of America .....	3,792,586 "
Western Coast of Africa.....	216,480 "
New South Wales.....	113,966 "
Guernsey, Jersey, &c.....	140,120 "

the remaining quantity (195,611 bushels) was sent in small shipments to the West Indies, ports in the Mediterranean, Brazil, &amp;c.

**Total Quantity of Salt made, and the proportion taken for Consumption in each Year from 1801 to 1817.**

Years.	Busbels made.	Busbels taken for consumption	Years.	Busbels made.	Busbels taken for consumption
1801	9,469,491	1,822,683	1810	11,929,728	1,999,486
1802	9,582,718	1,863,402	1811	10,387,932	2,038,252
1803	8,741,808	1,996,261	1812	9,468,659	2,047,492
1804	8,933,324	2,065,776	1813	11,067,603	2,037,931
1805	10,210,004	1,951,602	1814	12,182,497	2,045,892
1806	10,891,085	1,910,453	1815	15,084,644	2,136,912
1807	10,872,672	1,912,462	1816	11,559,350	2,003,243
1808	8,903,162	1,907,273	1817	9,357,482	1,939,674
1809	9,849,499	1,965,161			

*An Account of the Quantity and Declared Value of BRITISH HARDWARE and CUTLERY Exported from Great Britain during each year, from 1825 to 1831, both inclusive.*

YEAR.	Quantity.	Declared Value.
	TONS.	£
1825 .....	10,960	1,391,112
1826 .....	9,627	1,169,105
1827 .....	12,443	1,392,879
1828 .....	12,100	1,385,617
1829 .....	13,028	1,389,515
1830 .....	13,309	1,410,936
1831 .....	16,799	1,620,631

**COALS BROUGHT COASTWAYS AND BY INLAND NAVIGATION, INTO THE PORT OF LONDON, DURING THE YEARS 1838 AND 1839.**

Year.	Coastways.	By Inland Navigation.	Total.
	Tons.	Tons.	Tons.
1838 .....	2,581,085	1,685	2,582,770
1839 .....	2,625,323	12,933	2,638,256

**COALS, CINDER, AND CULM SHIPPED COASTWISE FROM THE FOLLOWING PORTS IN 1839; AND ALSO FROM ALL OTHER PORTS OF THE UNITED KINGDOM.**

	Tons.
Newcastle .....	2,159,321
Stockton .....	1,308,778
Sunderland .....	913,960
Swansea .....	486,792
Newport .....	470,820
Whitehaven .....	439,188
All other Ports of the United Kingdom	1,444,154

Total..... 7,223,013

**AN ACCOUNT OF THE MILEAGE AND COMPOSITION FOR DUTIES ON RAILWAY CARRIAGES AND ON STAGE CARRIAGES IN GREAT BRITAIN, FOR THE YEARS 1836-7-8-9.**

	1836.	1837.	1838.	1839.
RAILWAYS.	£	£	£	£
Mileage .....	9,097	14,636	36,251	79,837
Composition ..	1,199	2,256	3,319	1,879
STAGE CARRIAGES.				
Mileage .....	503,742	482,194	454,496	424,356
Composition ..	....	....	71	120
Total .....	514,038	499,086	494,138	497,193

**Statement of Iron made in 1840.**

	Tons of Iron Made.	Tons of Coal used.
Forest of Dean .....	15,500	60,000
South Wales .....	505,000	1,536,000
North Wales .....	25,500	110,000
Northumberland .....	11,000	38,500
Yorkshire .....	56,000	306,500
Derbyshire .....	31,000	129,000
North Staffordshire .....	20,500	83,000
South Staffordshire .....	407,150	1,582,000
Shropshire .....	82,750	409,000
Scotland .....	241,000	723,000
	1,396,400	4,877,000
Coal used in converting to wrought iron ..		2,000,000
Tons .....		6,877,000

**TABLE OF THE COST OF CONVEYING GOODS AND PASSENGERS ON CANALS,**

At different Rates of Speed.—(1838.)

Description of Boats.	Rate of Speed in miles per hour.	Resistance in fraction of Load.	Cost of Haulage per Ton per Mile.	Cost of Boat Hire per Ton per Mile.	General Expenses per Ton per Mile.	Aggregate Charges.	
						Useful Load per Ton per Mile.	Gross Load per ton per Mile.
Slow Boats.	2½	1-820ths.	D. 0-18	D. 0-32	D. 0-86	D. 1-36	D. 1-02
Fly Boats..	4	1-317ths.	0-50	0-66	2-34	3-5	2-275
Swift Boats.	10	1-40th.	0-275		9-7	1-08	10d. per ton
			per passenger. 3½ per ton.			per passenger. 13½ per ton.	

**Number of SHIPS, with the Amount of TONNAGE, which entered the undermentioned Ports in 1843.**

	BRITISH.		FOREIGN.	
	SHIPS.	TONS.	SHIPS.	TONS.
London .....	4,589	1,022,550	1,633	295,121
Liverpool .....	2,615	691,707	1,014	417,621
Bristol .....	315	78,331	25	5,278
Hull .....	973	203,149	945	104,644
Newcastle .....	1,676	244,605	1,148	137,356
Plymouth .....	524	35,361	26	5,237
Leith .....	266	38,647	364	33,671
Glasgow .....	246	43,794	51	12,084
Greenock .....	206	60,269	6	2,583
Cork .....	141	26,178	10	1,102
Belfast .....	148	33,899	27	3,968
Dublin .....	245	46,235	50	7,443

The following Statement of the Number and Tonnage of STEAM VESSELS belonging to the United Kingdom in each year, from 1814 to 1837 inclusive, will show the rapid progress of this new marine power. The account is exclusive of Steamers employed in river traffic, and which do not therefore require to be provided with a register.

Year.	Vessels.	Tonnage.	Year.	Vessels.	Tonnage.
1814 ..	1	69	1826 ..	228	24,186
1815 ..	8	638	1827 ..	253	27,318
1816 ..	12	947	1828 ..	272	28,010
1817 ..	14	1,039	1829 ..	287	29,501
1818 ..	19	2,332	1830 ..	295	30,069
1819 ..	24	2,548	1831 ..	320	32,262
1820 ..	34	3,018	1832 ..	348	35,238
1821 ..	59	6,051	1833 ..	382	38,122
1822 ..	85	8,457	1834 ..	424	43,429
1823 ..	101	10,361	1835 ..	497	52,767
1824 ..	114	11,733	1836 ..	554	59,862
1825 ..	151	15,764	1837 ..	632	71,031

The number of steam vessels employed under the American flag in 1834 was 386, with the aggregate burden of 96,000 tons: since that year the number has greatly augmented. On the rivers and in the ports of France there were employed in 1835 only 100 steam vessels, and in 1836 the number was only increased by five vessels.

**COALS.**

An Account of the Quantity of Coals brought Coastwise and by Inland Navigation into the Port of London, during the year 1834, compared with the quantities brought during 1833.

SHIPS.		Ports whence Shipped.	Tons.	
1833.	1834.		1833.	1834.
3,387	3,625	Newcastle .....	1,060,839	1,142,903
2,369	2,636	Sunderland .....	666,787	559,105
773	1,007	Stockton .....	170,690	221,971
178	248	Blythe & Seaton Sluice .....	45,689	64,265
67	176	Ports in Scotland .....	15,138	39,487
130	135	Places in Wales .....	32,156	33,200
173	177	Places in Yorkshire .....	16,110	17,751
		Quantity which passed the Boundary Stones on the Grand Junction Canal, &c. ....	4,395½	1,862
7,077	7,404		2,014,804½	2,080,547

**Statement of the increased Weight of Goods conveyed upon the Duke of Bridgewater's Canal from Liverpool to Manchester, on Freight and Tonnage, in the first quarter of 1824, compared with that of 1825.**

	Lady Day, 1824.			Lady Day increased, 1825.		
	T.	C.	Q.	T.	C.	Q.
Conveyed by the Trustees' vessels from Liverpool to Manchester .....	8,131	18	0	11,750	18	0
Ditto by sundry Persons from Liverpool to Manchester .....	14,237	5	0	21,081	4	8
Ditto by Kenworthy and Son on the Leigh Canal .....	1,042	2	2	1,626	11	2

**Total Number of Barrels of all the different kinds of BEER,**

Brewed in Great Britain in each Year from 5th Jan., 1817, to Jan. 5th, 1828.

Years ended 5th January.	Total Number of Barrels.	Total Amount of Duty.
1818 .....	6,795,074	£ 2,755,678 12 0
1819 .....	7,432,558	3,037,196 4 0
1820 .....	7,128,351	2,906,250 6 0
1821 .....	7,147,949	2,918,057 6 0
1822 .....	7,470,702	3,071,955 8 0
1823 .....	7,838,669	3,237,857 6 0
1824 .....	7,811,104	3,270,321 14 0
1825 .....	8,176,138	3,405,988 14 0
1826 .....	8,593,737	3,584,510 5 0
1827 .....	8,694,826	3,345,372 1 11
1828 .....	8,298,057	3,200,905 11 4

**Quantities of SILK Imported and Exported IN THE YEARS 1833 AND 1834.**

	1833.	1834.
Raw and Waste Silk—	lbs.	lbs.
Imported .....	3,434,560	4,656,463
Exported .....	66,187	207,007
Thrown Silk—	lbs.	lbs.
Imported .....	229,119	192,149
Exported .....	5,750	20,988
Silk, Manufactures of Europe—	lbs.	lbs.
Imported .....	157,290	183,813
Exported .....	16,139	16,115
India Silks, BANDANNOES—	Pieces.	Pieces.
Imported .....	295,160	379,696
Exported .....	175,314	176,238
—CRAPE.	Pieces.	Pieces.
Imported .....	170	76
Exported .....	586	203
—CRAPE SHAWLS, &c.	Number.	Number.
Imported .....	18,285	973
Exported .....	17,182	8,505
—TAFFETIES, &c.—	Pieces.	Pieces.
Imported .....	3,823	1,501
Exported .....	5,442	4,381

**An Account of the Quantity of BRITISH IRON, (including UNWROUGHT STEEL) Exported from Great Britain in 1830 and 1831.**

	1830.	1831.
	TONS.	TONS.
Bar Iron .....	59,885	64,012
Bolt and Rod Iron .....	8,042	6,191
Fig Iron .....	12,039	12,444
Cast Iron .....	8,554	10,861
Iron Wire .....	365	539
Wrought Iron—		
Anchors and Grapnels .....	1,246	1,004
Hoops .....	8,057	8,229
Nails .....	4,119	4,361
All other sorts except Ordnance .....	12,813	14,013
Old Iron for re-manufacture .....	884	1,413
Unwrought Steel .....	832	1,207

## CANALS AND NAVIGABLE RIVERS.

NAME OF NAVIGATION.	LENGTH.		No. of Locks	RISE.		FALL.		Length of Locks.		Width of Locks.		Above Datum at Liverpool	
	mils.	fms.		feet.	in.	feet.	in.	feet.	in.	feet.	in.	feet.	in.
Air and Calder Navigation .....	29	4	10	..	..	78	3	53	..	14	2	..	..
River Calder from Wakefield to the Junction with the Air .....	12	4	4	..	..	28	3	..	..	..	..	..	..
Ashton Canal .....	6	5½	18	150	7	..	..	70	..	7	..	320	7
Oldham Branch, from Fairfield to Waterhouses, thence to Hollinwood .....	4	5½	8	83	1	..	..	..	..	..	..	408	8
Fairbottom Branch, from Waterhouses to Fairbottom .....	1	2½	..	..	..	..	..	..	..	..	..	360	8
Stockport Branch, from Clayton to Heaton Norris, near Stockport .....	4	6½	..	..	..	..	..	..	..	..	..	254	8
Barnsley Canal .....	15	..	21	157	8	..	..	53	..	14	3	..	..
Holton and Bury Canal .....	11	..	18	182	..	..	..	68	..	15	..	258	4
Bury Branch, from Prestolee to Bury .....	5	..	..	..	..	..	..	..	..	..	..	258	4
Bridgewater Canal .....	28	2	11	82	..	..	..	73	..	14	2	93	4
Worsley Branch, from Water Meeting Junction, at Stretford, to Barton Aqueduct, thence to Worsley, thence to Leigh .....	10	4	..	Le	vel.	..	..	..	..	..	..	93	4
Calder and Hebble Navigation .....	22	..	26	..	..	188	5	53	..	14	2	..	..
Chesterfield Canal .....	..	..	..	..	..	..	..	70	..	7	..	..	..
Chester Canal .....	..	..	..	..	..	..	..	64	..	14	7	..	..
Cromford Canal .....	..	..	..	..	..	..	..	80	..	7	2	..	..
Dunn Navigation .....	39	..	16	..	..	92	3	53	..	15	2	..	..
Deane and Dove Canal .....	9	2	19	126	10	..	..	53	..	14	4	..	..
Branch to Eleker Iron Works .....	1	6	6	47	10	..	..	..	..	..	..	..	..
Branch to Worsborough Bridge .....	1	5	..	..	..	..	..	..	..	..	..	185	7
Douglas Navigation .....	9	..	8	..	..	45	1	60	..	15	..	..	..
Ellesmere and Chester Canal .....	60	4½	44	296	10	48	..	64	..	14	7	..	..
From Ellesmere to Ponty Cyssylte Aqueduct, thence to its termination, in the river Dee, at Llanysyllt .....	17	..	2	13	..	..	..	..	..	..	..	322	9
Middlewich Branch, from Wardle Green to the Grand Trunk, at Middlewich .....	10	..	4	..	..	44	4	70	..	7	..	..	..
Wern Branch, from Whixall Moss to Quinabrook .....	8	6	..	Le	vel.	..	..	..	..	..	..	..	..
Grand Trunk Canal, or Trent and Mersey Canal .....	93	5½	75	..	..	316	3	..	..	..	..	..	..
Huddersfield Canal .....	19	5½	74	344	8	435	..	70	..	7	..	..	..
Macclesfield Canal .....	29	4	13	..	..	112	1	70	..	7	..	..	..
Mersey and Irwell Navigation .....	43	6	11	4	8	48	4	66	..	15	6	..	..
Lancaster Canal .....	73	7½	9	72	..	228	..	72	..	14	6	..	..
Branch to Glasson Dock .....	4	..	7	..	..	75	6	..	..	..	..	..	..
Lancaster Canal, Johnson's Hill Locks .....	..	..	..	..	..	..	..	66	..	15	2	..	..
Leeds and Liverpool Canal, from Liverpool to Wigan .....	27	1½	91	436	9	412	8	76	..	13	2	..	..
Branch to Bradford .....	3	..	10	86	2	..	..	..	..	..	..	324	2
Branch to Leigh .....	7	..	3	..	..	15	2	76	..	15	2	..	..
Peak Forest Canal .....	14	5	16	211	..	..	..	70	..	7	..	320	7
Branch to the Cromford and High Peak Railway, at Whalley Bridge .....	..	5	..	..	..	..	..	..	..	..	..	531	7
Ramsden's Canal .....	3	5½	10	57	4	..	..	53	..	14	2	219	5
Rochdale Canal .....	33	2	63	517	..	353	7	73	..	14	2	..	..
Sankey Navigation .....	15	2½	11	91	5	..	..	65	..	16	9	102	9
Sheffield Canal .....	4	2½	11	..	..	69	..	53	..	15	2	..	..
Weston Canal and Weaver Navigation .....	22	0½	11	..	..	50	..	65	..	16	9	63	8
Branch from below Witton Brook Lock to Witton Mill .....	6	..	..	..	..	..	..	..	..	..	..	..	..
Also from half-a-mile above Sutton Lock to half-a-mile above Frodsham Bridge .....	..	4	..	..	..	..	..	..	..	..	..	..	..
Ashby de la Zouch Canal .....	29	7½	..	..	..	..	..	71	..	7	..	..	..
Avon Navigation .....	40	..	16	..	..	87	..	82	..	15	6	..	..
Birmingham Canal and Extensions .....	30	5	24	182	..	85	1	71	..	7	..	..	..
From Ryder's Green to Holloway Bank—Branch to Ridgacre; Toll End Branch; Ocker Hill Branch, from the Summit level to the Engine .....	6	1	..	65	3	..	..	..	..	..	..	..	..
Birmingham and Fazeley Canal .....	20	1	38	..	..	245	..	71	..	7	..	..	..
Digbeth Branch .....	1	..	6	..	..	36	3	..	..	..	..	..	..
Birmingham and Liverpool Junction Canal .....	38	7	26	176	9	..	..	82	..	7	6	..	..
Buckingham Collateral Branch .....	10	4	2	12	8	..	..	71	..	7	..	..	..
Caldon Canal .....	17	..	15	..	..	..	..	70	..	7	..	..	..
Coventry Canal .....	27	2	13	..	..	..	..	71	..	7	..	..	..
Detached part from Whittington Brook to Fradley Heath .....	5	1	..	..	..	..	..	..	..	..	..	..	..
Cromford Canal to Butterley Tunnel .....	3	2½	14	81	6	..	..	72	6	14	6	..	..
Derby Canal and Extensions .....	14	2	6	10	2	29	7	72	6	14	6	..	..
Branch to Little Eaton .....	2	7½	4	16	..	..	..	..	..	..	..	..	..
Dennington Wood Canal .....	6	1	7	..	..	78	9	71	..	7	..	..	..
Droitwich Canal .....	6	..	8	56	..	..	..	64	..	14	..	..	..
Dudley Canal and Extension .....	4	5	14	116	2	..	..	71	..	7	..	..	..

## CANALS—Continued.

NAME OF NAVIGATION.	LENGTH.		No. of Locks	RISE.		FALL.		Length of Locks.		Width of Locks.		Above Datum at Liverpool	
	mils.	fur.		feet.	in.	feet.	in.	feet.	in.	feet.	in.	feet.	in.
From Nitherton Junction to Gosty Hill Tunnel; thence to Hales Owen Wharf; thence to Lapal Tunnel—the length of the Tunnel; thence to the Worcester and Birmingham Canal at Selly Oak Junction..	11	3½	..	..	..	..	..	..	..	..	..	..	..
Ellesmere Canal ..	25	7	19	134	3	..	..	64	..	14	6	..	..
Wern Branch, from Whixall Moss to Quinabrook	3	6	..	..	..	..	..	..	..	..	..	..	..
Erewash Canal ..	11	1½	14	104	7	..	..	72	6	14	6	..	..
Gloucester and Berkeley Canal—Ship..	16	6½	..	..	..	..	..	163	..	29	6	..	..
Do. do. —Barge ..	..	..	..	..	..	..	..	115	..	29	6	..	..
Do. do. —Trow or Boat ..	..	..	..	..	..	..	..	81	6	13	6	..	..
Nen Navigation ..	11	6	13	..	..	47	9	..	..	..	..	..	..
Shropshire Canal ..	7	4	..	120	..	383	..	..	..	..	..	..	..
Brierley-hill Branch ..	2	6	..	..	..	..	..	..	..	..	..	..	..
Ketley Canal ..	1	3	1	..	..	1	6	..	..	..	..	..	..
Grand Union Canal ..	23	0½	17	54	..	76	..	71	..	7	..	..	..
Branch to Welford ..	1	5	1	5	..	..	..	..	..	..	..	..	..
Graham Canal ..	33	18	139	9	..	72	6	14	6	..	..	..	..
Herefordshire and Gloucestershire Canal ..	17	7½	14	133	1	..	..	73	..	8	..	..	..
Kington and Leominster Canal ..	29	1	38	248	4	54	8	71	..	17	..	..	..
Leicester Navigation ..	16	5½	9	..	..	50	..	70	..	14	6	..	..
Lydney Canal ..	..	..	..	..	..	..	..	110	..	25	..	..	..
Melton Mowbray Navigation ..	14	2½	12	71	2	..	..	70	..	14	6	..	..
Newport Pagnell Canal ..	1	..	7	..	..	51	6	71	..	7	..	..	..
Nottingham Canal ..	14	6	19	..	..	132	6	72	6	14	6	..	..
Nutbrook Canal ..	4	2½	13	84	2	..	..	72	6	14	6	..	..
Oakham Canal ..	15	2½	19	120	..	..	..	72	6	14	6	..	..
Oxford Canal ..	91	2	41	74	4	195	..	71	..	7	..	..	..
Shrewsbury Canal ..	17	3	11	154	..	..	..	71	..	7	..	..	..
Soar Navigation and Loughborough Canal ..	9	1	6	..	..	41	..	70	..	14	6	..	..
Staffordshire and Worcestershire Canal ..	46	4	43	100	6	293	8	71	..	7	..	..	..
Stourbridge Canal ..	7	1½	20	182	..	..	..	71	..	7	..	..	..
Stratford on Avon Canal ..	25	2	54	..	..	340	8	71	..	7	..	..	..
Stroud Canal ..	7	7½	12	109	..	..	..	72	..	17	6	..	..
Trent Navigation ..	30	..	..	..	..	67	..	72	6	14	6	..	..
Union Canal ..	23	4½	25	..	..	161	10	70	..	14	6	..	..
Uttoxeter Canal ..	13	2½	17	..	..	..	..	70	..	7	..	..	..
Warwick and Birmingham Canal ..	22	5½	33	42	..	188	..	71	..	7	..	..	..
Warwick and Napton Canal ..	14	1½	25	145	10	13	4	71	..	7	..	..	..
Worcester and Birmingham ..	30	0½	58	..	..	424	5	71	..	7	..	..	..
Wyrley and Essington Canal and Extensions	81	6½	30	264	10	..	..	71	..	7	..	..	..
River Thames	..	..	..	..	..	..	..	..	..	..	..	..	..
From Teddington Lock to Inglesham Lock..	141	3	38	..	..	..	..	..	..	8	6	5	10
Andover Canal ..	22	..	24	..	..	179	..	65	..	12	..	17	7
River Arun ..	9	..	4	4	6	23	6	78	..	14	6	260	4
Basingstoke Canal ..	36	7	29	194	2	..	..	82	6	9	..	184	2
Croydon Canal ..	9	2	28	167	..	..	..	60	..	..	..	..	..
Grand Junction Canal, from Braunston to the river	93	2	101	194	3	503	6	81	6	14	..	..	..
Thames..	..	..	..	..	..	..	..	..	..	..	..	..	..
Northampton Branch ..	4	5½	17	..	..	111	5	..	..	..	..	..	..
Aylesbury Branch ..	6	2	11	..	..	100	7	..	..	..	..	280	..
Wendover Branch ..	6	6	..	Le vel.	..	..	..	..	..	..	..	408	3
Paddington Cut..	13	4	..	..	..	..	..	..	..	..	..	105	6
River Itching..	11	4	..	..	..	..	..	..	..	..	..	..	..
Surrey Canal ..	..	..	15	..	..	123	9	70	..	13	..	..	..
River Avon ..	17	4½	2	..	..	3	5	..	..	..	..	..	..
Kennet and Avon Canal ..	57	4	6	30	1	..	..	80	..	14	6	6	27
River Kennet..	18	..	79	404	6	211	..	80	..	14	6	6	..
Kensington Canal ..	2	4	20	..	..	132	10	80	..	14	6	6	..
Lea Cut ..	1	4	..	..	..	..	..	..	..	..	..	..	..
Sir George Duckett's Canal ..	1	1½	3	..	..	17	6	..	..	..	..	..	..
River Lea. ..	24	7	26	102	3	..	..	96 to 100	9	13	6	124	9
River Medway..	24	4½	15	59	7½	..	..	..	..	..	..	79	8½
North Wilts Canal ..	8	6	11	1	2	57	2	74 to 50	..	7	6	277	9
River Ouse..	30	0½	19	136	8½	..	..	48 to 30	..	13	3	136	8½
Portsmouth and Arundel Canal ..	12	0	4	21	..	20	..	90 to 75	..	18	6	..	..
Branch from the summit at Hunston to Chi- chester Basin ..	1	2	..	..	..	..	..	..	..	12	6	..	..
River Rother..	12	2	8	54	..	..	..	..	..	..	..	68	7
Regent's Canal ..	9	..	13	..	..	80	6	86	..	14	6	..	..
Somerset Coal Canal ..	9	F. C. 7-8	23	130	7	..	..	..	..	..	..	..	..

## CANALS—Continued.

NAME OF NAVIGATION.	LENGTH.		No. of Locks.	RISE.		FALL.		Length of Locks.		Width of Locks.		Above Datum at Liverpool	
	ms.	fur.		feet.	in.	feet.	in.	feet.	in.	feet.	in.	feet.	in.
Thames and Medway Canal	9	2	..	..	..	..	..	..	..	..	..	..	..
River Stort	13	6	15	90	7	..	..	96	..	13	6	187	9
Wilts and Berks Canal	50	7-4	42	189	3	163	9	74	..	7	6	..	..
Branch from middle Lodge to Chippenham	1	5-4	..	Le vel.	..	..	..	..	..	..	..	..	..
Branch to Calne	3	0-0	..	21	8	..	..	..	..	..	..	..	..
River Wey to Guildford	15	2	11	65	3	..	..	81 to 84	6	14	3	106	1
Do. to Godalming	4	3	4	22	6	..	..	84 to 74	9	14	3	128	7
Wey and Arun Canal	18	4	23	48	1	126	2	76 to 70	..	13	..	36	7
Stowmarket and Ipswich, from Stoke Bridge at Ipswich, to Stowmarket Bridge at Stowmarket, by the Orwell river	16	R.P. 3-20	16	90	48	..	..	..	..	..	..	..	..
Bridgewater and Taunton	12	0	6	40	..	..	..	..	..	..	..	..	..
Weald of Kent	29	0-0	25	82	..	107	6	..	..	..	..	..	..
Wye Branch to near Wye	15	4-2	..	Le vel.	..	..	..	..	..	..	..	..	..
Chelmer and Blackwater	13	5	..	72	5	..	..	..	..	..	..	..	..
Branch to the Basin at Maldon, $\frac{1}{2}$ of a mile	..	..	..	6	5-4	..	..	..	..	..	..	..	..

Statement shewing the increase of Passengers booked at the different Stations on the  
**MANCHESTER AND BIRMINGHAM RAILWAY,**  
 during the half-year ending July 31st, 1845, compared with the corresponding period in 1844.

## LOCAL TRAFFIC.

	Manchester.	Longsight.	Levenshulme	H. Norris.	Stockport.	Cheadle.	Handforth.	Widnall.	Alderley.	Chelford.	H. Chapel.	Sandbach.	Crew.	Macclesfield.	Knuttsford.	Congleton.	Total.
1845.....	201049	23780	17721	73011	92532	6800	9405	9587	8930	8133	8698	7118	6932	21794	6988	2855	504333
1844.....	178104	13489	8098	94349	26443	3092	7344	5102	5013	4553	3891	3179	3197	26292	4637	2832	389613
Increase .....	22945	10291	9623	43751	3708	2061	4485	3917	3589	4807	3039	3735	..	4498	2351	23	114718
Decrease .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4498

## THROUGH TRAFFIC.

Including Passengers from and to Birmingham.

Through Traffic, 1845..	61733	197	46	4101	85	55	236	138	4336	1542	1403	..	..	..	..	..	73964
Ditto ditto 1844..	42637	145	67	2908	52	27	148	65	3083	1138	1199	..	..	..	..	..	51467
Increase .....	19098	54	..	1193	33	28	88	73	1253	404	294	..	..	..	..	..	22497
Decrease .....	..	..	21	..	..	..	..	..	..	..	..	..	..	..	..	..	..

Increase of Passenger Traffic, Local ..... 114718  
 Through ..... 22497

Total Increase..... 137215

Statement of Merchandise Traffic from the Opening of the Manchester and Birmingham Railway, Aug. 10, 1842.

SIX MONTHS ENDING	LONG TRAFFIC. OR PAST CREWE.				SHORT TRAFFIC. OR NOT BEYOND CREWE.				TOTAL.			
	WEIGHT.		AMOUNT.		WEIGHT.		AMOUNT.		WEIGHT.		AMOUNT.	
	T.	C. Q.	T.	S. D.	T.	C. Q.	T.	S. D.	T.	C. Q.	T.	S. D.
January 31, 1843	13,966	2	14,713	17 1	1,153	15 3	412	17 6	15,119	17 3	15,126	14 7
July ... 31, 1843	18,910	3 3	17,268	6 7	5,437	0 0	1,088	13 0	24,347	3 3	18,356	19 7
January 31, 1844	24,371	2 3	21,655	18 2	12,548	9 2	1,335	4 1	36,519	12 1	22,391	2 3
July ... 31, 1844	25,165	18 1	19,490	2 8	23,569	10 2	2,014	14 6	48,728	8 3	21,504	17 2
January 31, 1845	34,034	19 1	29,869	11 0	32,005	1 3	3,186	19 5	66,040	1 0	33,056	10 5
July ... 31, 1845	37,724	1 2	28,537	9 1	41,553	19 3	3,467	4 5	79,278	1 1	32,004	13 6

## CARRYING DEPARTMENT.

The Company became Carriers on the 16th October, 1843.

HALF-YEAR ENDING	FROM MANCHESTER.				TO MANCHESTER.				TOTAL.			
	WEIGHT.		AMOUNT.		WEIGHT.		AMOUNT.		WEIGHT.		AMOUNT.	
	T.	C. Q. L.B.	T.	S. D.	T.	C. Q. L.B.	T.	S. D.	T.	C. Q. L.B.	T.	S. D.
January 31, 1844	1,143	2 3 19	807	4 1	4,784	7 1 4	2,585	3 10	5,927	10 1 5	3,392	7 11
July ... 31, 1844	3,714	5 1 12	1,915	13 8	8,733	7 3 27	4,288	13 8	12,447	13 1 11	6,201	7 4
January 31, 1845	7,142	6 3 12	4,400	2 5	12,015	8 0 8	7,504	6 2	20,167	14 3 20	12,204	8 7
July ... 31, 1845	9,132	15 3 12	6,195	6 10	15,851	12 2 1	9,073	12 5	24,924	8 1 13	15,268	19 3

## MISCELLANEOUS STATISTICS.

1.—The following amounts of Toll were paid, per month, on an average, between June, 1842, and June, 1843, by the following carriers, &c. to the Manchester and Leeds Railway Co.:—

Carver and Co. ....	£2,400
Pickford and Co. ....	1,500
Kenworthy and Co. ....	500
Marsden and Co. ....	350
Thompson & Kay ....	500
Barnby Faulkner ....	300
Ann Johnson ....	100
Cockerham ....	200
Jackson and Sons ....	100
Deacon and Co. ....	50
Millers, &c., for grain ....	4,000

2.—Weight of Goods forwarded and received at Ellesmere port, for three months ending

	Forwarded.	Received.
	TONS.	TONS.
March, 1837 .....	4,774	9,675
June, 1837 .....	7,179	11,324
September, 1837 .....	8,865	12,690
December, 1837 .....	8,702	17,123
March, 1838 .....	5,201	14,082

3.—MESSRS. SHIPTON & Co., forwarded by canal, from Ellesmere port to Wolverhampton,

40 tons of live pigs on the 8th of February, 1836.	
55 ditto ditto. 15th ditto. ditto.	
105 ditto ditto. from 8th to 15th, ditto.	

4.—In 1840, the weight of goods passing between Manchester and Birmingham and London, by canal, was 18,000 tons per year; and between Manchester and Stourbridge and Bristol, 12,000 tons. The iron received into Manchester was 24,000 tons for the year.

5.—The Anderton Carrying Company transhipped at Anderton, on the river Weaver per month, on an average, in 1842,

To Macclesfield, goods, &c. ....	223 tons.
Congleton ditto. ....	68 "
Potteries ditto. ....	203 "
Potteries clay, ....	1338 "
Northwich, goods, &c. ....	166 "
Sundry places, ditto. ....	52 "
Liverpool ditto. ....	20 "

Liverpool, earthenware, 4400 packages, at an average rate of 4s. 3d., from the Potteries to Liverpool.

6.—The Anderton Carrying Company forwarded between Liverpool and the Staffordshire Potteries, during three months ending 31st December, 1842, 11,639 packages, 3197½ tons, £2395. 18s. 11d. freight, 322 boats, 14s. 11½d. average rate of freight per ton.

7.—Messrs. Pickford & Co. forwarded, and received at Liverpool, by railway and canal, as under:—  
During 3 months, ending March, 1841. . . 4906 tons.

" 13 weeks, ending 3rd December, 1842, 5656 tons.

8.—Messrs. Crowley & Co. forwarded between Ellesmere port and Liverpool, from 1st February, 1835, to 30th June, 1836:—

	Weight.	Freight.	Average rate per ton
Tons. c. q. lb.	£.	s. d. s. d.	
To Liverpool. 8897 10 3 7.	1756	6 7. 3 11½	4s. 1½d.
From ditto. . . 4727 0 3 1.	1075	2 4. 4 6½	

And Messrs. Shipton & Co.,

	Weight.	Freight.	Average rate
Tons. c. q. lb.	£.	s. d. s. d.	per ton.
To Liverpool. 15,328 4 2 8.	2721	13 0. 3 6½	
From ditto. . . 2,986 19 1 28.	682	12 11. 4 6½	3s. 8½d.

From the above the E. & C. C. allowed 4d. per ton.

9.—CANAL SHARES.—In August, 1792, England was in a ferment, created by speculations in canal shares; to promote which, many new canals were projected, and incredible sums subscribed chiefly in the midland counties. On the 18th of Aug. 1792, there appeared in the GAZETTE 19 different notices of intended applications to parliament respecting internal navigation. The following were current premiums on single shares in those canals for which acts of parliament had been obtained:—Birmingham and Fazeley, £1170; Stourbridge, £350; Melton, £55; Grand Trunk, £350; Coventry, £350; Leicester, £155; Worcester, £20.

10.—On the 1st of July, 1801, an experiment, says the ANNUAL REGISTER, took place on the river Thames, for the purpose of working a barge, or any other heavy craft, against tide, by means of a steam engine on a very simple construction. The moment the engine was set to work, the barge was brought about, answering her helm quickly; and she made way against a strong current, at the rate of TWO MILES AND A HALF AN HOUR.

11.—Mines of rock salt, near Northwich, yield about 80 or 90,000 tons, and of white salt about 300,000 tons are made. The duty by the bushel, in 1815, was received on 15 million bushels, of which 2 were retained for home consumption. The export is immense, 4½ million bushels to Europe, and 5½ to North America.

12.—The tin mines yield latterly about 4000 tons, formerly only 2760. Two tons of Banca tin are imported at 50s. per cwt. duty, and re-exported; but Banca tin supplies all the East. The exports of British tin have been two tons, and are now not half a ton. The price has fallen from £140 to £75 per ton.

13.—Cornwall is now more celebrated for copper than formerly for tin. In 20 years the produce has risen from 7 to 12,000 tons. Other copper mines in the United Kingdom yield about 2000 tons. Copper has fallen from £120 per ton to £105.

14.—The largest produce of copper was in 1832-3-5, about 12,200 tons. In 1837 it was 11,823 tons.

15.—From 1831 to 1837, 142,785 tons of ore produced 11,637 tons of copper, or 8-125 per cent. Before 1790 a fifth of produce, yielded a third of copper, or 12 per cent.

16.—Tin is cast into blocks from 3 to 4 cwt.; and then assayed in Cornwall, at Lestwythiel, Truro, Helston, or Penzance.

17.—No imported copper is used at home; nearly 8000 tons of British are exported.

18.—The lead mines in Derbyshire, Cumberland, &c., yield about 15,000 tons per annum. A lead wire, the thirteenth of an inch, sustains 28lbs.

19.—Steel has become a large product at Sheffield. It employs 60 furnaces, which produce 10,000 tons per annum besides some hundred moulding furnaces, all which consume 100,000 tons of local coal. The other manufactories consume 200,000 tons, besides 38,000 for 75 steam-engines, of an average of 18 horse-power. Swedish iron is employed for cutlery, &c., in proportion of 10 to 2 British.

20.—Of the quantity of iron, South Wales produces 279½ thousand tons, Staffordshire 219½, Shropshire 81½, Scotland 37½, Yorkshire 33, Derbyshire 22½, and North Wales 25. The quantity has increased 100,000 tons per annum.

21.—France has about 2400 miles of canal navigation. The navigable rivers of France are between 4000 and 5000 miles, and of England about 1800.

22.—We export 71,000 tons of bar, 22,000 of pig-iron, and 14,000 in castings, besides 10,000 as rod and wire. Of anchors, &c. 2900 tons, hoops 12,000, nails 5000, and sundries 21,000. In all 157,000 tons. There is also exported 1710 tons of bars of steel, from Swedish wood-made iron. America, in spite of its Pittsburgh, is our greatest customer.

23.—In 1740, the 59 charcoal furnaces of England and Wales produced but 17,380 tons of iron. About 1770, coke was preferred to charcoal, and in 1837, the produce was a million of tons.

24.—In 1836, a million of tons of iron were smelted, at a mean price of £7. 10s. per ton.

25.—954 persons are ascertained to have perished by explosions in English and Welsh coal mines, between 1810 and 1835; and 1609 in Durham and Northumberland only, between 1710 and 1810. Since Davy's lamp, 538 have perished in 18 years in those counties, and in 18 years before only 447; but a committee of parliament decided that Davy's principle was previously known to Clanny and Stephenson.

26.—By heavy waggons, at 2½ miles per hour, the cost is 8d. per ton per mile. Light vans, at four miles, 1s. A four-horse stage varies from 16 to 18 cwt., and carries 2 tons of passengers and luggage, at 9 miles per hour, at 8d. per passenger per mile, or 3s. per ton per mile.

27.—The Caledonian Canal is 60½ miles long, 15 feet deep, and 120 to 50 broad, with 28 locks; but, in 16 years, it has not paid the interest. Its expense was a million!

28.—536 miles of canal in the United Kingdom have been made since 1800.

29.—The Regent's Canal, round the North of London, is 8 miles long. It passes from the Thames at Limehouse, is 45 feet wide, and rises in 13 locks, 84 feet, passing through a tunnel at Islington, of 896 yards, and another at Paddington, of 440 yards, to the basin of the Grand Junction, which joins it to the inland navigation of the kingdom. It is crossed by 37 bridges.

30.—There are 104 canals in the United Kingdom. The Leeds and Liverpool 130 miles, the Ellesmere 109, the Grand Trunk 93, with 37 of branches, the Grand Junction 93½, with 53 of branches, and the Oxford 91, are the longest. The oldest is the Bridgewater, in 1758, and the next in 1770. Whether they will maintain themselves against railways, can only be determined by experiment.

31.—In 1838, there were 2200 miles of canal in England, and 1800 of improved river navigation. In Ireland, there were 300 miles of canals, and 200 of rivers.

32.—The Grand Canal from Dublin to the Shannon, is 80 miles, with 8 branches of 75 miles.

33.—The Newcastle coal-trade employs 950 ships of 212,703 tons, and 10,975 men and boys; 68 vessels, per annum, are wrecked, and 170 lives lost. Vessels are valued at £10 per ton.

34.—7400 ships bring about 2,100,000 tons of coal to the Port of London, of which half are from Newcastle, and a third from Sunderland and Stockton. The Scotch and Welsh send about 35,000 tons each. Yorkshire, with its vast coal fields, but half this quantity.

35.—There entered the Port of London, from foreign parts, in 1831, 5610 ships; in 1832, 4018; and, in 1833, 4396; average tonnage 190 tons.

36.—The 22 docks of Liverpool cover 111 acres, and the quay spaces around them are 8 miles, and beside the river 2½ miles. The Prince's dock is 57,129 square yards; the Queen's, 51,502; the King's, 37,776; Brunswick, 60,824.

37.—The cost of the 22 docks and dry basins has been above 2 millions. The first, erected in the reign of Anne, is now filled up. 12,000 vessels enter, inwards and outwards, per annum.

38.—The several London Docks occupy, in water, wharfs, warehouses, &c., 295 acres.

39.—The West India Docks, in the Isle of Dogs, formed in 1890 and 1802, cover 68 acres; and the buildings, &c., 72 more. They cost 1½ million, and hold 204 vessels. The shed, near the quays, is a quarter of a mile long; the frame-work and supports are wholly iron. Beneath are extensive vaults for rum and spirits, wholly lighted by day-light reflectors and reflections.

40.—The St. Catherine's Docks cost £1,700,000, and cover 24 acres, in clearing which, 1250 houses were pulled down. It will accommodate 150 ships, besides small craft.

41.—The London Docks cover 25 acres, 29 feet deep; the entrance basin is 12½ feet; and these, with the quays, sheds, and warehouses, four stories high, with extensive vaults, cover 110 acres.

42.—In the 3 years, 1816, 1817, and 1818, 1203 ships were lost; and, in 1833, 1834, and 1835, 1702—the cargoes 6 and 8½ millions; and, in the 6 years, 5000 of the crews and passengers were drowned.

43.—10,026 ships, averaging 110 tons, have been employed between Great Britain and Ireland.

44.—Timber freights from Quebec have fallen from £60 in 1818, to £42 and £38. From Memel, £27 to £18. From Petersburg, from £37 to £25. Coals from Shields, £13 to £9½. From the Mediterranean, from £5. to £3.

45.—The consumption of the best coals is 8lbs. per horse power per hour, so that in 466 hours, it would be 466 X 300 X 8 = 500 tons nearly. A 300-horse power engine weighs 320 tons, and the stores for 19 days, 50 tons, leaving 330 for passengers, &c. &c. Every horse power is equal to 4 tons, in the best vessels and best construction.—RUSSELL.

46.—Tabular statement of the comparative dimensions and capacities of the three first American steam ships:—

	British Queen.	Liverpool.	Great Western.
Extreme length	275 ft.	223 ft.	236 ft.
Breadth within paddle-boxes	37½	30 5.6ths.	35½
Tonnage	1,863	1,149½	1,340
Horse-power	500	468	450
Diameter of cylinder	71½ in.	75 in.	73½ in.
Diameter of paddle-wheels	30 ft.	28½ ft.	28½ ft.
Extra weight: engines, boilers, &c. water	500 tons.	450 t.	480 t.
Ditto, coals	600	600	600
Ditto, cargo	500	250	250
Draught of water	16 ft.	16½ ft.	16½ ft.

47.—In 1834, a locomotive cost £900; in 1836, £1120; in 1838, £1,200; in 1839, £1,250.

48.—The Birmingham railway has 7 tunnels, in all 8½ miles. The Primrose-hill 1120 yards. The Kensal Green 320 yards. The Watford 1830 yards. The Leighton 272 yards. Weedon 418 yards. Kilaby 2398 yards. Bechwood 300. The Birmingham station is 250 feet above the London. Iron rails for the whole 11½ miles cost £460,000, for 35,000 tons, and the stone blocks 180,000 for 152,460 tons.

49.—The total cost of merchandize on the Liverpool and Manchester Railway is about 2d. per ton per mile, and of coals, 1½d. per mile. On the canal it is 1½d., but the railway is to the canal as 31 miles to 56; so that the cost is 6s. 3d. per canal, and 3s. 11d. per railway, always shorter than canals.

50.—In 280 days, from June 1833, to March 1839, 434,225 passengers passed on the Birmingham railway, producing £262,557, i.e. above 1600 per day, producing about £950. Summer and Autumn is the best season by 50 per cent.

51.—In the same time, and on the sameline, £40,369 was received for parcels, chiefly in winter; and £1300 for excess luggage. The weight of goods was 10,417 tons, in 3044 waggons. Up and down nearly equal.

52.—In nearly 18 months, of 1837-8, the locomotive, or directive power, on the Birmingham railway, cost £48,000; the coaching department, £58,000. The engineering, £15,390. The produce of every kind, £270,000.

53.—Passengers, carried on the Greenwich railway during Whitsun-week, 1839, exceeded those of any former period. Monday, 35,336, receipts £1,327; Tuesday, 22,877, and £784; Wednesday, 10,058, and £345; Thursday, 4,636, and £117; Friday, 3,372, and £122; Saturday, £346—Total £2,942.

54.—The Menai Bridge is 1600 feet long, 30 feet wide, and 100 feet above the water. The weight suspended is 343 tons, and the power 2016 tons. The water-way is 500 feet.

55.—A suspension bridge at Freyburg, the longest in the world, was completed in 1834. Its dimensions, compared with those of the Menai, are

	Length.	Elevation.	Breadth.
Freyburg .....	905 ft.	174 ft.	28 ft.
Menai .....	580	130	25

It is supported on four cables of iron wire, each containing 1,056 wires, the united strength of which is capable of supporting three times the weight which the bridge will ever be likely to bear, or three times the weight of two rows of waggons, extending entirely across it.

56.—To convey 180 passengers 240 miles in 24 hours, by coaches, would require 12 coaches with 15 passengers each, and 1200 horses; but one locomotive engine does the same in 12 hours, and, therefore, is equal to 1200 horses. If the coaches, as the mail, took but 6 passengers each, they would employ 3000 horses, and the engine, in its two trips, is equal to 6000 horses.

57.—The bones imported for manure, in 1836, were in value £171,806.

58.—The agricultural produce exported from Ireland is about 7,000,000 tons. The import trade is 385,000 tons.

59.—Liverpool alone imported from Ireland in 1837, to the value, in live stock, of 3½ millions, which included 250,000 sheep and lambs, 85,000 cattle and calves, and 595,422 pigs.

60.—The whole of the iron made in Great Britain, in 1740, was 17,000 tons, from 59 furnaces. In 1788, it was 68,000, from 85 furnaces; and, in 1827, it was 690,000 from 284. In 1839, the produce was nearly a million of tons, in 360 working furnaces.

61.—About 360 furnaces make nearly 800,000 tons of pig-iron, or 2200 tons each per annum, i.e. 5½ per day, or 40 per week. A furnace in mining, smelting, forging, tilting, &c., employs 280 men, women, and boys, who, at 16s. per week, cost £224, besides the mine, coals, lime, machinery, &c., a full £100 more, i.e. about £7 12s. per ton. Then, as 2000 tons per week are produced by 280 hands, 800,000 tons of pig-iron would employ 90 or 100,000 hands.

62.—Iron and Hardware. The mineral produce of Great Britain, on an average, of late years, and prices in 1838.

Silver....	10,000 lbs.....	£30,000
Copper....	13,000 tons.....	1,300,000
Tin.....	5,500 .....	558,000
Lead.....	46,000 .....	950,000
Iron.....	900,000 .....	7,000,000
Coal.....	25,000,000 .....	10,000,000
Salt, alum, and minor } produce .....		1,000,000

Total value.....£20,000,000

63.—Cornwall, in 1837, yielded 140,753 tons of ore, of which the copper was 10,823.

64.—The proportions in a furnace for a ton of bar-iron are—¾ tons of ore, 24 to 34 of coals, and ¾ of limestone. And ¾ tons of coals are used for the engine. Iron-stone is worth from 1s. to 2s. per ton, and coals about 3s. or 4s. Limestone is 2s. per ton; 7-8ths of all that is made is used at home. Coke is generally used, but coal is preferred for some iron.

65.—An average of 27 cwt. of pig-iron makes a ton of wrought iron; while others estimate the average at 30 cwt. to the ton.

66.—Crawshaw's iron works, at Merthyr Tydvil, employed, in 1832, 5000 persons, 8 steam engines of 50-horse power, day and night, equal 1200 horses; eight water-wheels, of 27-horse power; and 50 furnaces, 50 feet high.

67.—The greatest product at one work has been 32,611 tons, from 12 furnaces at Dowlais, by Guest and Co. This is 2717 per annum per furnace, or 7½ per day!—MARSHALL.

68.—Scotland has 59 furnaces, and 12 buildings. They work with hot air, and produced, in 1839, 184,080 tons; and, it is expected the new furnaces will, in 1840, raise the annual make to 280,000 tons. The largest make is at Gartsherrie, 29,316 tons, with 8 furnaces. Dundivan and Calder make 25,000 each.

69.—Owing to the reduction of the currency, in 1826, the prices of Birmingham goods fell from 40 to 80 per cent. The profitless prices have, however, doubled the value of the exports in 20 years, and raised the quantity from 10,000 to 17,000 tons.

70.—In 1720, Great Britain imported 2 millions lbs. of Cotton: in 1751, 3; in 1780, 5; in 1787, 22; in 1800, 56; in 1810, 132; in 1820, 147½; in 1830, 260; and, in 1835, 360. France imported, in 1810, 25; in 1820, 44; in 1830, 90; and, in 1835, 91½. Since 1830, Switzerland has imported from 17 to 20 millions per annum. The United States, in 1835, imported 91 of India cotton.

71.—In 1827, in cotton manufactures, 365,492,804 yards were exported, value £12,948,035; and, in 1836, 637,667,627 yards, for £17,183,167. In 1827, at 8½d. per yard; and, in 1836, at 8½d. per yard.

72.—In 1827, 44,878,774 lbs. of twist and yarn were exported for £3,545,578, at 1s. 6½d. per lb.; and, in 1836, 88,191,046 lbs. for £6,120,366, at 1s. 4½d. per lb.

73.—In 1836, 2,546,177 lbs. of worsted yarn were exported for £358,690, at 2s. 10½d. per lb.

74.—In 1836, 4,574,504 lbs. of linen yarn were exported for £318,772, at 16½d. per lb.

75.—In 1836, 192,352 tons of iron and steel were exported for £2,312,674.

76.—In 1833, the power-looms in Great Britain were 100,000; and they were, in 1838, full 130,000. The hand-looms were above 200,000, but at steam prices!

77.—Of the immense imports, 1,124,180 bags were North American, as Sea Island from 1s. 6d. to 2s. 6d., or New Orleans from 7d. to 10½d. The Egyptian was 31,570, from 11½d. to 1s. 5d.; the rest from South America, Turkey, and both Indies. In 1837, the North American were but 846,268 bags.

78.—The weekly averages, for home consumption, were, in 1838, 24,229 bags per week; and, in 1837, but 20,729.

79.—The cotton manufactures exported in 1837, were worth £18,482,586; in 1838, £13,632,146; and, in 1839, £16,709,736. The yarn, each year, £6,120,326, £6,955,936, and £7,431,848.

80.—Wool.—The quantity of wool grown in England, in 1828, was 263,847 packs of long wool, and 120,657 short wool, total 384,502, at 240lbs. each.

81.—The quantity of foreign wool imported into the United Kingdom in the year 1833, was 38,076,413lbs; 25,370,106lbs. were from Germany, and 3,516,000lbs. from New South Wales. In 1838, the British wool and goods exported were valued at £6,683,698; and the woollen yarn at £384,535.

82.—England alone consumes 4 millions of lbs. of silk, and every lb. requires 3500 worms. China must have consumed 50 times this quantity for 3000 years, it being the universal clothing. It is produced mostly between the 30th and 40th degrees. The East India Company imported from China about 3000 tons, and the quality is always the same.

83.—**SILK**—In 1827, there were imported 4,389,582 lbs. of silk; and, in 1833, but 3,663,679. In 1827, the exports of silk manufactures were £916,777; in 1833, £503,653; and, in 1839, £777,273.

84.—The whole weight of all kinds of glass made, per annum, is about 30,000 tons, of which bottle glass is 2-3ds. The exports are about 15,000 tons, chiefly to India, the United States, and Brazil. The duties, in 1836, were £683,237.

85.—16,000 tons of hides and skins are annually imported, at a custom-house value of 1¼ million, for conversion into leather, and these, with home produce, make 30,000 tons of leather, worth five millions. Twice the value is believed to be expended in labour and profits, or 10 millions. This gives employment to 133,000 shoe-makers, to 30,000 tanners, &c.; to 12,000 saddlers, and to 25,000 glove-makers, of all ages. A large shoe-trade exists at, and near, Northampton, and a glove-trade at, and near, Worcester; but, we besides import 1¼ million pairs of gloves from France.

86.—The western counties are supposed to make 50,000 hogsheds of Cyder, and 1500 of Perry.

87.—In England, about 2400 miles of navigable canals have now been made, and wholly at the expense of private companies or individuals; in Ireland, 300 miles; in Scotland, 200. These works are unequalled for extent, and for difficulties of the latter, may be mentioned as specimens of the latter, may be mentioned the tunnel at Bilsworth, on the Grand Junction Canal, which is 3080 yards in length. The underground cuttings in the Duke of Bridgewater's canal are said to be altogether 18 miles long, and to have cost £170,000. The Clarendon tunnel, in the Huddersfield canal, is 5451 yards long. The tunnel at Sapperton, in the Thames and Severn canal, is 2½ miles in length, and 250 feet below the highest point of the hill through which it is made. In the Thames and Medway canal, between Gravesend and Rochester, a tunnel 2½ miles is cut through the chalk; and one of the tunnels of the Leominster canal at Pensax is 3850 yards long. (1844.)

88.—There are (1832) three lines of canal between London & Birmingham, viz., the Coventry Canal, by the way of Fazeley, which is 177 miles long; the Oxford Canal, by Warwick and Knapton, which is 152 miles long; and the Grand Junction Canal, by the Worcester and Stratford Canal, which is about 155 miles long. The number of locks on the Fazeley line are 150, on the Warwick 173, and on the Stratford 161. A fly boat occupies four minutes in passing the boat locks, and five minutes the barge locks, and slow boats pass in five minutes; so that 1¼ hours are occupied by the fly boat, and 14 hours by the slow boats, in passing all the locks on the Fazeley line. There are six tunnels on the Fazeley line, occupying a distance of four miles; on the Worcester there are six, making about 4½ miles; on the Stratford there are six, making 4½ miles.

89.—There was a drawback allowed on coals consumed at the mines (in certain situations), which, for the county of Cornwall, amounted in 1829 to £16,148.

90.—The value of Machinery exported from Great Britain during the six years ending 1829, has been—1824, £129,652; 1825, £212,416; 1826, £233,955; 1827, £214,129; 1828, £63,372; 1829, £256,539.

91.—The average quantity of salt made yearly, about 1795, from the Cheshire brine springs, which are inexhaustible in quantity, and many of them fully saturated, is supposed to be nearly: At Northwich, 45,000 tons; Winsford, 15,000 tons; Middlewich, 4,000 tons; Lawton, 1,500 tons; Nantwich, 60 tons. If to these numbers be added, for refined rock-salt, at Northwich, 5,000 tons. Frodsham, 4,000 tons, the whole quantity of salt made in Cheshire will appear; viz, about 74,560 tons.

92.—We may fairly date the origin of English canals from the Act of 1755, under the authority of which a canal about 11 miles in length was executed, which commences in the river Mersey, at the mouth of Sankey-brook, alongside which it runs in a northerly direction to Gerrard's Bridge and St. Helen's.

93.—The whole Iron made in Great Britain was—

1740 .....	17,000 tons a year, from 59 furnaces
1788 it had increased to	65,000 do. .... 65 do.
1796 .....	125,000 do. .... 121 do.
1806 .....	250,000 do.
1820 .....	400,000 do.
1827 .....	690,000 do. .... 284 do.

The different counties in which it is made are as under, in 1827—

Staffordshire .....	216,000 tons, from 95 furnaces.
Shropshire .....	78,000 do. .... 31 do.
South Wales .....	272,000 do. .... 90 do.
North Wales .....	24,000 do. .... 12 do.
Yorkshire .....	43,000 do. .... 24 do.
Derbyshire .....	20,500 do. .... 14 do.
Scotland .....	36,500 do. .... 18 do.

690,900 tons, 284  
About 3-10ths of this quantity is of a quality suitable for the foundry, which is all used in Great Britain and Ireland, with the exception of a small quantity exported to France and America. The other 7-10ths is made into bars, rods, sheets, &c.

94.—About 300,000 quarters of corn, and 50,000 sacks of flour, are annually conveyed down the river to Yarmouth; and about 60,000 chaldrons of coals, and 20,000 tons of goods, are brought up the river from Yarmouth every year. (1824.)

95.—In 1828 the total quantity of merchandise passing between Liverpool and Manchester, was 1200 tons per day.

96.—**SHEEP AND LAMB'S WOOL, WOOLLEN MANUFACTURES, &c.**—The quantity of British sheep and lambs' wool exported to foreign countries, during 1834, was 2,278,721 lbs.; of woollen and worsted yarn (including yarn of wool or worsted mixed with other materials) 1,861,814 lbs; the declared value of British woollen manufactures exported, during 1834, amounted to £5,736,870; and the quantity of sheep and lambs' wool imported into the United Kingdom from foreign countries, including the Isle of Man, during 1834, was 46,490,720 lbs., of which 40,840,271 lbs. were retained for home consumption, 807,362 lbs. were re-exported, and 6,494,266 lbs. remained warehoused under bond, on 5th January, 1835.

97.—**SUGAR.**—The total importations from all parts in 1834, into the United Kingdom, was 4,743,414 cwt. The total quantity in 1833 was 4,789,291 cwt. The following places imported the largest proportions in 1834 into the United Kingdom:—

Jamaica .....	1,236,253 cwt.	Trinidad .....	339,614 cwt.
Demerara .....	687,282 do.	The Mauritius .....	553,959 do.
British possessions in East Indies, including Singapore, 102,196 cwt., Cuba, 113,165 cwt.			

98.—**IRON EXPORTED AND IMPORTED,** in 1834.—Of British iron exported, there were, of bar iron, 70,809 tons; bolt and rod iron, 9154 tons; pig iron, 21,788; cast iron, 13,870; iron wire, 398; anchors and grappels, 1941; hoops, 12,046; nails, 5,005; all other sorts, except ordnance, 20,947; old iron, for re-manufacture, 497; unwrought steel, 1,709 tons.—Of foreign iron imported, there were, iron in bars or unwrought, 16,215 tons, and 698 tons of unwrought steel. There were small quantities of other kinds imported, and a quantity of iron and steel manufactures entered at the declared value of £3,459.

99.—**SOAP.**—Quantity of Soap made in Great Britain during 1834:—

	HARD SOAP.	SOFT SOAP.
England .....	131,879,433 lbs. ....	7,104,225 lbs.
Scotland .....	11,925,464	3,247,200

Great Britain .. 143,904,897 10,355,425  
The quantity of soap exported to Ireland during 1834, was, of hard soap, 11,268,526 lbs., of soft soap, 53,604 lbs.; and the amount of drawback was £70,595 16s. 6d. The quantity exported to foreign countries was, of hard soap, 12,450,747 lbs.; of soft soap, 8,458 lbs., and the amount of drawback was £77,968 4s. 4d. The number of individuals prosecuted for defrauding the revenue arising from duties on soap during 1834, was 36.

100.—Value of the Trade carried on by British Ships at Canton in the years 1833-34, the exchange being taken, at 4s. 4d. a dollar; Imports £5,019,280; Exports £4,474,576. Of these sums the private traders imported 4,142,480, and exported £2,676,722. The American Trade in the years 1832-33 was: Imports £1,811,976; Exports £1,762,164. The Dutch Trade in 1831-32 was: Imports £99,043; Exports 137,289. The trade of other countries can only be estimated by the number of ships. In 1833-34, there arrived in China 41 Spanish, 19 Portuguese, 4 Danish, 1 Prussian, 8 French, 4 Hamburg, 1 Belgian, and 1 Mexican vessel.

101.—COFFEE IMPORTED AND EXPORTED. The total quantity imported in 1834 was 41,865,111 lbs.; the total quantity exported, 15,250,480 lbs.

102.—TALLOW.—Quantity of Foreign and Colonial Tallow imported in 1833 and 1831:—  
Tallow imported, 1,115,427 cwt. .... 1,397,406 cwt.

103.—TOBACCO AND SNUFF.—The quantity of leaf tobacco, manufactured tobacco, cigars and snuff, entered for home consumption, in the year ended 5th January, 1835, was 21,339,307 lbs., on which the gross amount of duty received was £3,241,985. The quantity imported from all parts of the world into the United Kingdom during the same period, amounted to 39,477,906 lbs., of which 38,440,794 lbs. came from the United States.

104.—There are at present (1837) 54 four-horse and 49 pair-horse MAIL-COACHES in England. The greatest speed attained by any of these is 10.5-8th miles per hour, and the slowest speed of any is 6 miles, the average of the whole being 8.7-8th miles per hour. There are, besides, 30 four-horse mails in Ireland, and 10 in Scotland. The number of stage-coaches, including mails, licensed by the Commissioners of Stamps at the beginning of 1837, was 3,026. Of this number about one-half (1507) begin or end their journeys in London.

105.—Statement of Traffic upon the Grand and Royal Canals and the Barrow Navigation, on the average of the three years, 1821 to 1823, when compared with the average of the three years from 1831 to 1833:—

	Average Traffic. 1821-22-23.	Average Traffic. 1831-32-33.
Grand Canal .....	140,236 Tons	227,169 Tons.
Royal Canal .....	88,190	141,973
River Barrow, down .....	23,770	35,487
" up .....	19,478	30,658
Tons .....	271,674	435,187

106.—It was given in evidence, by Sir John Guest, before the Committee of 1840 on Import Duties, that in the year 1806 the quantity of iron made in the kingdom was increased to 258,000 tons; that in 1823 the quantity produced was 452,000 tons; in 1825 it had reached 581,000 tons; and in 1828 the quantity was 703,000 tons. At this point the manufacture remained stationary for a few years, but in 1831 it again began to advance, and in 1835 the quantity made was estimated on good grounds at a million of tons. In the following year the estimate was 1,200,000 tons, and in 1840 it reached 1,500,000 tons.

107.—The expense of constructing canals depends so much upon local circumstances, that it is impossible to give data of general application. Some idea, however, of the relative proportion which one part of the work bears to another, may be had from the following abstracts of estimates by Mr. Baird and Mr. Telford.

108.—Edinburgh Union Canal, 32 miles. (Mr. Baird.) Cutting, embanking, puddling, towing paths, £71,000; bridges, aqueducts, tunnels, drains, £34,000; land, £23,000; fencing, £5500; nine locks, rise 110 feet, £17,000; reservoirs, £12,000; total, £212,500.

109.—Leicestershire and Northamptonshire Canal, 42 miles. (Mr. Telford.) Cutting, &c., £130,000; bridges, &c., £65,000; land, £18,000; fencing, £6700; total, £219,700. The rise effected by a lock varies from 4 to 12 feet, according to circumstances, but seldom exceeds 8 feet. The expense appears from Mr. Telford's estimates to vary in general from about £120 to £180 per foot rise.

110.—In 1830 the receipt for dues on the Weaver Navigation was upwards of £20,000.

111.—On the Grand Junction Canal, (1844,) between London and Birmingham, fly boats are employed, which average a speed of 4 miles per hour; they weigh from 7 to 7½ tons, and carry from 10 to 15 tons of goods. The ordinary heavy boats are dragged at the rate of from 2 to 2½ miles the hour: they carry 20 tons of goods, and weigh 6½ tons; others carry 24, and weigh 9 tons. [Stocks.]

112.—In 1740, the quantity of iron made in England and Wales had sunk to 17,350 tons; in 1788, after the cylinder invention, the total annual produce was 68,300 tons. By 1796 it was 108,793 tons, or including Scotland, 124,879; the iron trade in that country having more than doubled in eight years. In 1802, the annual produce of Great Britain was estimated at 170,000 tons; in 1823, it had grown to 442,066 tons; and in 1828, to 702,504 tons (*Porter's Progress of the Nation*, sec. 2, ch. 6). But, owing to the recently extended applications of iron to railways, machinery, gas-apparatus, roofs, columns, windows, and furniture, this rapid advance was nothing to its progress in the next decade. "In 1835," says Sir John J. Guest, an experienced ironmaster, "it was estimated at about a million of tons; in 1836, it was estimated at 1,200,000 tons; and the estimate made by a very intelligent person who went round the works in 1839, was 1,512,000 tons, which is rather increasing" (*Report on Import Duties*, 1840. *Evidence*, Q. 392.) This increase was proportionally greatest in Scotland, where such was the expansion of the iron-trade, that the produce, though only 37,700 tons in 1828, was, according to a report laid before the Glasgow Chamber of Commerce, augmented, in 1840, to 250,000 tons, a quantity greater by 47 per cent. than the total produce of all Britain in 1802.

113.—The price of iron has been subject to very great fluctuations, especially of late years. In September, 1824, the current of common bars at the shipping port was £9 a ton; in March, 1825, a period of great speculation, it rose to £14; but by March, 1830, owing to the extended production consequent on this high rate, it fell to £5 5s. a ton. Since that period, in consequence of the increased demand for railways and other purposes, the price has risen considerably, and at present (February 1842) it is quoted, in bars, at £6 15s. a ton; that of pig being £4. Taking the quantity stated above, 1,500,000 tons, as the present annual produce, and applying this last price of £4, gives the value, in pig, at £6,000,000; to which, adding £3,000,000 as the cost of converting seven-tenths thereof (the common estimate) into bars, bolts, rods, sheets, and the other forms of wrought iron, makes the total annual value of the manufacture £9,000,000.

114.—The exportation of British iron has increased in a degree corresponding to its production, notwithstanding the high duties with which it is loaded in almost all foreign countries. In 1820, the quantity of wrought and unwrought iron and steel shipped was 85,065 tons, of the declared value of £1,131,788; in 1839, 247,912 tons, and value £2,719,824; and in 1840, 268,328 tons, value £2,524,859; in 1841, the value was £2,867,950. The exportations in 1839 consisted of 124,135 tons bar-iron, about one-half of which was sent to the United States, and the remainder chiefly to Italy, Holland, India, and the colonies; 12,315 tons in bolts and rods, sent to Portugal, Italy, Germany, and India; 43,460 tons pig-iron, shipped mostly to the United States, France, and Holland; 10,837 tons cast iron, chiefly to the United States and British colonies; 777 tons wire to Belgium, Germany, United States, &c.; 8108 tons of anchors and grapnel; 11,225 tons hoops; 7195 tons nails, and 30,384 tons of all other sorts of wrought iron, (except ordnance,) chiefly sent to the colonies, India, United States, Holland, Germany, and S. of Europe; 549 tons old iron; and 3974 tons unwrought steel, mostly to the United States.

115.—The following amounts were received for Tonnage on the Birmingham Canal Navigations:—in 1818, £84,295; 1819, £83,442; 1820, £83,303; 1821, £85,675; 1822, £79,733; 1823, £88,905.

116.—There are on the Trent and Mersey Canal 127 aqueducts and culverts; 91 locks; 6 tunnels. Harecastle tunnel is 2880 yards long. The total length of the canal is 93 miles.

117.—In Mr. Scrivenor's History of the Iron trade, the number of furnaces in blast, and estimated annual make of iron in the different districts, in 1839, was stated as follows:—South Wales and Forest of Dean, 120 furnaces, 532,480 tons; South Staffordshire, 180 furnaces, 338,730 tons; North Staffordshire, 10 furnaces, 28,600 tons; Shropshire, 24 furnaces, 86,060 tons; Yorkshire, 13 furnaces, 89,960 tons; Derbyshire, 13 furnaces, 37,440 tons; North Wales, 12 furnaces, 28,080 tons; Newcastle-on-Tyne, 5 furnaces, 11,440 tons; Scotland, 50 furnaces, 195,000 tons. Total, 378 furnaces, 1,347,790 tons.

118.—The present annual produce in foreign countries, in so far as it is known, or has been estimated, may be stated as follows:—France possesses 475 furnaces, which produce 347,700 tons of cast-metal (*fonte*) worth £2,520,000; and 1500 refining furnaces, which produce 224,100 tons of malleable iron (*gros fer*), worth £3,720,000 (Report of Minister of Commerce, 1841); Sweden, 100,000 tons; United States (in 1837,) 250,000 tons; Belgium (in 1837), 135,000 tons, from 89 furnaces; Saxony, 99,427 quintals, from 19 furnaces; Styria, 20,000 tons; Spain, 8000 tons.

119.—The quantity and declared value of hardware and cutlery exported (exclusive of pig and wrought iron), was in 1820, 6697 tons, £949,085; in 1830, 13,269 tons, £1,410,936; in 1835, 20,197 tons, £1,833,043; in 1836, 21,072 tons, £2,271,313; in 1837, 13,371 tons, £1,460,807; in 1838, 15,295 tons, £1,498,327; in 1839, 21,176 tons, £1,828,521; and in 1840, 14,995 tons, £1,349,137; in 1841, the value was £1,625,191. About one-half is sent to the United States; the remainder to the colonies, India, Germany, and indeed most countries with which we have commercial relations. Of late, the exports have been somewhat checked by foreign competition, chiefly that of Belgium and Germany.

120.—Before the Duke of Bridgewater began his canal, the price of water carriage by the old navigation on the rivers Mersey and Irwell, from Liverpool to Manchester, was twelve shillings the ton, and from Warrington to Manchester, ten shillings the ton. Land carriage was forty shillings the ton, and not less than two thousand tons were yearly carried on an average. Coals at Manchester were retailed to the poor at seven-pence per hundred weight, and often dearer.

121.—An anonymous friend (as he styles himself) of Mr. Brindley says, "He was the greatest enthusiast in favour of artificial navigations that ever existed. Having spoken upon various circumstances of rivers before a committee of the House of Commons, in which he seemed to treat all sorts of rivers with great contempt, a member asked him for what purpose he apprehended rivers were created? Mr. Brindley, considering with himself a moment before he gave an answer, replied at last, "To feed navigable canals."

122.—Previous to the establishment of the Grocer's Company, in 1811, the charge upon grain going from Liverpool to Manchester, was 13s. per ton; the charge upon sugar was 16s. 8d.; upon cotton, 20s.; upon down goods, 20s.

123.—Those charges were made by the Duke of Bridgewater's Canal, and the Mersey and Irwell.

124.—The charges were continued a little while after the Grocer's Company was established, and reduced about eighteen months afterwards; that upon grain to 12s. 6d. per ton; upon sugar, 12s. 4d.; upon cotton, 18s. 4d.; and upon down goods to 15s.

125.—The Grocer's Company was the first additional conveyance that was established on either of the Canals to Manchester.

126.—In the year 1788, there belonged to the port of Liverpool, of all descriptions, four hundred and thirty-three vessels, measuring 71,983 tons; in 1800, 535, measuring 91,010 tons; and in 1824, 1115 vessels, measuring 176,151 tons. In 1788 there entered the port of Liverpool 3677 vessels. At that period the average of shipping frequenting the port was not above one-half what it now is; in 1800, 4746, the tonnage 450,060 tons; in 1824, the number was 10,001, and the tonnage, 1,180,914 tons.

127.—The extent of the increased charges that led to the establishment of the Grocer's Company was as follows:—Corn was raised from 11s. 8d. to 15s., flour from the same price to 16s. 8d., cotton from 16s. 8d. to 20s. It was a simultaneous advance on the part of both the Trustees and the Old Quay.

128.—In 1805 the warehousing system was extended to Liverpool, and in 1806, the number of warehouses occupied with bonded goods was 85; in 1824, the number was 204.

129.—In 1790, the quantity of cotton imported was 68,404 bales; in 1800, the quantity was 92,580 bales; in 1823, the quantity was 578,300; in 1824, there was a falling off, on account of the deficiency of the crop in America, and it amounted only to about 447,000 bales; so that, between 1800 and 1825, it rose from 92,588 to 578,000 bales.

130.—In the year 1752, the population of the town of Manchester was only 19,000; in the year 1773, it was only 27,000; ten years after the Duke's Canal, after both the canals were in play, 27,000; in the year 1821, 135,000; in the year 1824, 160,000. Now, look to Liverpool. In the year 1788, it was 56,000; in the year 1824, it was 164,000; in the year 1724, there was not a single bag of cotton entered into Liverpool; in 1824, 10,000,000lbs. passed between those two places.

131.—In the year 1788, there belonged to the port of Liverpool, of various descriptions, 433 vessels; measuring 71,983 tons; in 1800, 535, measuring 91,010 tons; and in 1824, 1115, measuring 176,151 tons. In 1788 there entered the port of Liverpool 3677 vessels. In 1800 the number was 4746, the tonnage 450,060. In 1824 the number was 10,001, and the tonnage 1,180,914. In 1805 the warehousing system was extended to Liverpool, and in 1806, the number of warehouses occupied with bonded goods was 85; in 1824, the number was 204. In 1790, the quantity of cotton imported, was 68,404 bales; in 1800, the quantity was 92,580 bales; in 1823, the quantity was 578,300; in 1824, there was a falling off, on account of the deficiency of the crops in America, and it amounted only to 447,700 and odd bales.

132.—The debt upon the Leeds and Liverpool Canal, in 1825, was £391,681, and that upon the Leigh branch, £44,162 8s. 2d.

133.—The original cost of the Leigh Branch was £61,419 4s. 4d., and the cost of the Leeds and Liverpool Canal was £1,817,295 18s. 6d.

134.—The expense of the annual repairs of the Leigh branch has been, in 1821, £11 17s. 0d.; in 1822, £215 16s. 11d.; in 1823, £272 12s. 1d.; in 1824, £224 14s. 6d.; making a total of £745 0s. 6d.

135.—There has been expended, for the accommodation of fly-boats, and trade in general, on the locks, £1905 19s. 7d., and, since 1818, in the purchase of land and building warehouses, &c., £15,786 3s. 5d.

136.—In 1823-4, the Leeds and Liverpool Canal Company spent upon the purchase of lands and wharfs, £5,920 16s.

137.—The quantity of merchandize that has passed on the Leigh branch, from Liverpool to Manchester, during the same year, was, in 1821, the first year, 12,693 tons; in 1822, 22,423 tons; in 1823, 36,890 tons; in 1824, 31,437 tons.

138.—The gross amount of tonnage carried in 1824, by Kenworthy, from Liverpool to Manchester, was about 8000 tons. The tonnage of back carriage from Manchester to Liverpool was about one-half, altogether, 12,000 in the year.

139.—The Old Quay Company had, in 1825, at Manchester, seven warehouses. They have had on the premises, at one time, very near 20,000 bags of cotton, and near 70,000 bushels of corn, and nearly at the same time. In 1825, they had upwards of 4000 tons of dyewood, and have had more than 5000 tons at one time. Up to 1818, the Company had expended, in building warehouses, from 70 to £80,640; and in 1824, they erected other premises, at a cost of from 14, to £15,000.

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**152.—An Account of the Gross Amount of Tonnage Dues received on the River Weaver and the Weston Canal, in each year from 1801 to 1837.**

Gross Amount of Tonnage received.		Gross Amount of Tonnage received.	
Years.		Years.	
1800—1	£15,407	1819—20	£19,116
1—2	16,490	1820—21	19,062
2—3	14,809	21—22	16,701
3—4	14,023	22—23	17,758
4—5	15,659	23—24	21,122
5—6	17,579	24—25	21,332
6—7	16,630	25—26	22,988
7—8	17,524	26—27	20,868
8—9	17,076	27—28	23,017
9—10	21,744	28—29	26,594
10—11	23,846	29—30	28,046
11—12	16,379	1830—31	30,221
12—13	20,590	31—32	28,870
13—14	18,357	32—33	29,800
14—15	29,091	33—34	32,156
15—16	23,194	34—35	29,384
16—17	13,139	35—36	26,270
17—18	15,600	36—37	27,916
18—19	22,474		

**153.—The quantity of iron made during the first six months of 1842, in Yorkshire, Derbyshire, Staffordshire, Shropshire, South Wales, and Scotland, was as under:—**

Yorkshire	23,471 tons.
Derbyshire	13,795 "
Staffordshire	151,130 "
Shropshire	40,643 "
South Wales	158,715 "
Scotland	135,460 "

Together.....523,214 tons  
Equal to 1,046,428 tons per annum.

**154.—Of flint glass about 55,000 cwts. are made annually; of plate about 30,000 cwts.; of crown, about 118,000 cwts., and of bottle-glass nearly 200,000 cwts.**

**155.—THE DISC ENGINE AND CAPTAIN CARPENTER'S PROPELLERS.**—We are informed that the boat, fitted up with Captain Carpenter's propellers and the disc engine, the performance of which we noticed in our last number, has since been made the subject of experiment on the Grand Junction Canal, the experiments being conducted in the presence of Sir F. Head, the chairman of the Board of Directors of the Canal Company, and other influential members of the Board, and of some gentlemen who attended from the well-known firm of Messrs. Pickford and Company. We learn that Captain Carpenter's boat was at first employed to tow a canal barge, heavily laden with bricks, and that subsequently she was attached to one of Messrs. Pickford's fly boats, fully laden, which was drawn for about five miles at a much higher speed than can be accomplished economically by horses. The experimental trials are stated to have continued upwards of three hours, and the results obtained such as to have induced all the gentlemen present to concur in the remark that, as regards the application of steam-power to canal navigation, this apparatus, combining all the requisites of extreme simplicity, perfect manageability, and small cost, provides all that can be required for this purpose; the only question remaining to be determined, being the relative cost of steam power thus supplied, and of the ordinary mode of towing canal boats. On this head, the proprietors of the disc engine, and of the propelling apparatus, state that they are in a position to show that such a reduction will be effected in the cost of canal transit, as will prove of great advantage to the public, and of most especial importance to the Proprietors of canals. We think it highly creditable to the Committee of the Grand Junction Canal Company that, subsequently to these trials, they have spontaneously voted to Captain Carpenter the sum of £100 as an expression of their opinion of the important services rendered to the canal interests. We understand that the steam pressure at the experiment which Mr. Herapath witnessed was 28lbs., not 38lbs. per inch, as proved by the mercurial column the next day. The gauge was incorrectly graduated.—*Railway Mag.*, April 30th, 1842.

**156.—NEW SYSTEM OF INLAND TRANSPORT.**

An experiment has been made on the Forth and Clyde Canal, in Scotland, which seems likely to affect seriously the relative value of property in canals and railways. On some canals in Scotland, light iron vessels, capable of carrying from 60 to 100 passengers, are towed along by a couple of horses, at a rate of ten miles an hour; and this is effected by what is called riding on the wave. This new system of wave navigation, the theory of which has been fully explained in the reports of the meetings of the British Association, has hitherto been limited in its use by the speed of horses. The experiment to which we now allude shows that the locomotive engine is capable of performing feats equally astonishing in water as in land carriage. A locomotive engine, running along the banks of the canal, drew a boat, loaded with sixty or seventy passengers, at a rate of more than nineteen miles an hour! and this speed was not exceeded only because the engine was an old fashioned coal engine, whose maximum speed, without any load, does not exceed twenty miles an hour; so that there is every reason to infer that, with an engine of the usual construction employed on railways, thirty, forty, or fifty miles an hour will become as practicable on a canal as on a railway. The experiments to which we refer were performed under the direction of Mr. Macneill.—*YEAR BOOK OF FACTS.* (1840.)

**157.—THE LIVERPOOL SCREW** is an iron vessel of 65 ft. long, 12½ ft. beam, and 3 ft. 9 in. draught of water. The vessel is propelled by two high-pressure oscillating engines, with cylinders 18 in. diameter, and 18 in. stroke. In some experiments, the pressure of the steam in the boiler varied from 50 to 60 lbs. per square inch, and was cut off at one-fourth of the length of the stroke, working the remainder by expansion; the nominal power was 20 horses, but it did not really exceed 18½ horses. The cylinders were placed diagonally, with both the piston rods working upon the same crank, the driving shaft being beneath the cylinders, and running directly to the propeller without the intervention of either gearing or bands. The screw-propeller was enlarged three times, and at last was left at 5 ft. 4 in. diameter, by 20 in. in length; it was set out with a pitch expanding from 10 to 11 feet, on Woodcroft's plan; it was made of wrought iron, with four short arms with broad shovel ends, whose united area was 16 square feet, 13 feet only of it being immersed, as some portion of the arms was constantly above the water; the angle of the centre of the float was 45°; the speed of the propeller was generally 95 revolutions per minute. With these dimensions, the speed attained was described at 10½ statute miles per hour. The amount of slip of the screw in the water, as ascertained by Massey's log, was stated not to exceed 5 per cent. Several experiments showed that there was not more tendency to "list," to turn round by the action of the screw, than with paddle wheels; and the vessel was said to have excelled all the other steamers in the port of Liverpool in towing out vessels in a rough sea.—*GLASGOW PRACTICAL MECHANIC.* (1844.)

**158.—CANAL STEAM NAVIGATION.**—Mr. H. Davies (the inventor of the disc engine) has constructed eight towing boats, fitted with disc engines, for the Birmingham and Liverpool Junction Canal Company, and these are now regularly employed in carrying on an extensive traffic on a line of canal extending from Atherly, near Wolverhampton, to Ellesmere Port, on the Mersey, a distance of 69 miles, in which two trains, usually consisting of six or eight loaded boats, are started from each terminus of the above line every day, and, by this means, a quantity of merchandise, averaging between 2,000 tons and 3,000 tons per week, is conveyed by the use of steam power on canals. The average weight of merchandise conveyed in each train exceeds 100 tons, and the baulage of this for one mile is effected by the consumption of less than ¼ cwt. of coal; consequently, the power of hauling one ton of goods one mile is yielded by the consumption of less than half a pound of coal. The engine is managed by one man; the train of boats is steered by one man; and the sole additional attendance is that of a conductor, (whose chief duty is to prevent pilferage,) except in passing locks, when extra assistance becomes necessary. An equal quantity of goods could not be moved by horse power, without the continued employment of six horses, with the requisite relays for changing these, and at least twenty-four men on board the boats.—*MECHANICS' MAGAZINE*, 1844.

### 159.—SCREW PROPELLERS ON CANALS.

Steam tugs, with screw propellers, have been successfully introduced on the Union Canal; with boats, the first of the kind introduced into Scotland. They are built of iron by Messrs. John Reid and Co., Port Glasgow; and the engines, screw propellers, &c., are fitted up by Mr. Wm. Napier, sen., engineer, Glasgow. The engines are on the upright principle. They communicate their power to the screws placed on each side of the bow; and by a very nice arrangement of wheels with wooden and iron teeth (in order to prevent noise and vibration) they are driven at a great speed without creating any of that surge or wash on the banks which has hitherto formed the chief objection to the use of steamers on canals. The result of the experiment gave great satisfaction; and, independently of the gain in point of speed, it is calculated that there will be a considerable saving in expense, compared with the ordinary mode of tracking by horses. The steam boat had attached to her six very large scows deeply laden, but it is capable of towing double the number without material diminution of speed. The scows to be tracked are connected together by rods having a parallel movement, and all under the control of the steersman on board the steamer, so that the necessity of a separate rudder and steersman for each scow is avoided—the whole train moving along with a steady and uniform motion.—GLASGOW CITIZEN, 1844.

160.—RAILWAY VIADUCTS.—The cheapest stone viaduct in England is probably the Dutton Viaduct, over the Weaver, on the Grand Junction Railway. It is on a piled foundation, and carries the line over the navigation at a height of 65 feet in twenty segmental arches, of 60 feet span. It is about 80 feet from the foundation to the level of the rails, 1484 feet long, and taken at 30 feet wide, will be found to fill a chasm of 130,000 cubic yards, at a cost of £53,000; being about 8s. per cubic yard.—RAILWAY CHRONICLE, 1844.

161.—SEVERN IMPROVEMENT.—The Lincoln Lock and Weir being the first of the series connected with this important work, have been brought into full operation. The lock is 100 ft. long by 20 ft. wide, with a lift of 7 ft. at low water. The walls and invert are faced with blue Staffordshire bricks of excellent quality, and are built upon a foundation of red sandstone rock. The water is let in and discharged through a culvert 7 ft. high by 4 ft. 6 in. wide, built in one of the walls, and running parallel with the lock chamber, with which it communicates by seven arched openings; by this arrangement the lock is filled with such rapidity, that vessels have been passed through it in 2½ minutes. The weir, which is 300 ft. in length, is constructed of two rows of sheet piling, the walling of which forms the upper and lower sills, the intermediate space being filled with blocks of red sandstone; a large quantity of this material is also placed below the lower sill to protect the piles from the action of the water. Both the lock and the weir are placed in artificial cuttings, which arrangement required the waters of the Severn to be diverted from their original course. From a variety of causes this was a work of no small labour and difficulty, but it was successfully performed, and the water was turned into its new channel over the weir on the 30th of December, 1844. Four other locks, one being 150 ft. long by 30 ft. wide, together with their accompanying weirs, which range from 300 to 400 ft. in length, are in course of construction between Stourport and Deglis, near Worcester. The works below Worcester consist of a series of embankments, and the deepening of the navigable channel by dredging.—CIVIL ENGINEER AND ARCHITECT'S JOURNAL, Part 78.

162.—According to the evidence on traffic given before a committee of the House of Lords on the Cheshire Junction Railway Bill, in 1836, it was proved that the water carriage between Manchester and the following places, viz., Birmingham, West Bromwich, Wednesbury, Worcester, Gloucester, Wolverhampton, Dudley, Bilston, Tipton, Stourbridge, Stourport, Shropshire, Shrewsbury, South Wales, the Potteries, Newcastle, Stone, Stafford, Nantwich, Chester, Middlewich, Sandbach, Northwich, and Staffordshire, amounted annually to 364,098 tons. The trade from Manchester to London, and the other southward traffic (not included) added to the foregoing, will give about 700,000 tons per annum, at the least.

163.—In 1833 trials were made on the Paddington Canal of a new Canal Boat, the object of which was to show, that a boat built in a different form, and constructed of other materials than those of the ordinary canal boat, might, by using superior horses, be drawn along the water at the rate of ten miles or more in an hour, instead of at two, the pace of the boats now in use. The day was remarkably fine. The portion of the canal more particularly appropriated to the experiment was from the third to the seventh mile from Paddington. The boat was constructed of sheet iron, riveted hot. It was 70 feet long, by five and a half wide, painted green and white, and provided with an awning of white twilled cotton cloth, rendered semi-transparent with oil. The rudder is a single sheet of iron about a yard long, and moved by a tiller made of about two yards of stout rod iron. Two steady hunting horses, each mounted by a lad, and the two harnessed to a towing rope of about 160 feet in length, constituted the moving power. The number of persons on board the boat was 48, including the crew, the gentlemen making the experiment, some of the principal members of the Grand Junction Company, and the visitors, amongst whom were Mr. Telford, Mr. Babbage, and Captain Basil Hall. Certain distances were measured on the canal bank, and marks set up at the ends of them. At each of these places also, a man was stationed with a gauged rod in his hand, with which, as the boat passed, he might mark the height of the wave caused by the disturbance of the water. The speed from one station to another, taken by second watches, showed, for some time, a progress at the rate of thirteen miles an hour. The horses, however, began to tire, and the speed fell to eleven, and ultimately, in returning for the third time, to ten and a quarter. The motion is the easiest imaginable. The boat glides along the water so smoothly and noiselessly, that its progress is all but imperceptible to those on board whose attention is not directed to external objects. The banks of the canal will have to be edged for nine or ten inches above the ordinary level of the water, with hard materials, and the towing path to be slightly sloped outwards.—HANTS TELEGRAPH.

164.—In 1833 a small canal steamer, called *La Reine*, built at Manchester, conveyed to Belgium, being intended to ply with goods and passengers on the grand canal between Ostend, Bruges, and Ghent, instead of the truckschuyts or boats drawn by horses, hitherto employed in the communication between those cities. The engine is on the high pressure principle. Her hull is entirely of iron, with one paddle-wheel fixed in an opening of the stern, so that her engine room and boilers are abaft the principal cabins. This has been so fixed to prevent the agitation occasioned by the wheel injuring the banks of canals. She is steered by two rudders, one on each side the paddle wheel, but both managed by a single wheel upon deck; and we understand that upon her passage from Liverpool to Milford she averaged seven miles an hour, in spite of the cross seas of the Irish channel; of course, in the smooth water of the Belgic canals her speed will be considerably greater.—UNITED SERVICE JOURNAL.

165.—In 1823 the total length of canals in Great Britain, excluding those under five miles, was 2589 miles.

166.—The Newcastle coal formation contains 5,575,680,000 cubic yards, extending in length 23 miles. 28,000,000 tons of coal are annually raised, being 31 millions of cubic yards.

167.—There was a drawback allowed on coals consumed at the mines (in certain situations), which, for the county of Cornwall, amounted in 1829 to £16,148.

168.—The value of machinery exported from Great Britain during the six years ending 1829, has been—1824, £129,682; 1825, 212,416; 1826, 233,955; 1827, 214,129; 1828, 265,368; 1829, 256,539.

169.—The total amount of tonnage-rates levied from vessels navigating the Caledonian Canal, from May, 1833, to May, 1834, was £2077 2s. 7½d. The expenditure during the same period, amounted to £3802 19s. 5d. The revenue of the canal has remained nearly stationary during this period; but the intercourse carried on by its means, between the ports of Glasgow and Inverness, has been nearly doubled.

**170.—The Mersey and Irwell Company's** shares, originally of the value of £70, sold, before the opening of the Liverpool and Manchester Railway, for a sum as high as £1250 each.

**171.—**It has been calculated that the available coal beds of Lancashire amount in weight to the enormous sum of 8,400,000,000 tons. The total annual consumption of this coal, it has been estimated, amounts to 3,400,130 tons. Hence it is inferred that the coal field of Lancashire, at the present rate of consumption, will last 2,470 years.

**172.—**In consequence of the duty imposed upon printed cottons, we are acquainted with the quantity which has undergone the process at different periods in England, up to the year 1831, when the duty was wholly repealed.

The quantity printed in 1796 was.... 20,621,797 yards.

In 1800 it had increased to ..... 32,869,729 "

In 1814 it had further increased to.. 124,613,472 "

And in 1830 had reached to ..... 347,450,299 "

Being more than ten times the quantity printed at the beginning of the century."—PORTER'S PROGRESS OF THE NATION.

**173.—THE RAILWAYS AND CANALS TO BIRMINGHAM AND LIVERPOOL.**—It was stated by Captain Hulsh, in evidence before the railway committee, while explaining why the Grand Junction Railway was exposed to greater Canal competition than the London and Birmingham, that the canal which competes with the latter is 149 miles in length, and has no fewer than 172 locks, whereas the Grand Junction Railway is situated between two canals, one of which is shorter than the railway, and has only 86 locks. The other canal is 18 or 19 miles longer than the railway. The two canals compete with each other and the railway.—RAILWAY RECORD.

**174.—TOLL FOR COAL IN 1843.**—At a meeting of the Midland Counties Railway, at Derby, 14th of February, 1843, it was stated by Mr. WATERS, that the charge for coal was 1d. per ton per mile for locomotive power, 4d. per ton per mile for use of wagons, and 4d. per ton per mile for loading and superintendence.—The York and North Midland Railway Company forwarded during six months to 31st December, 1842, 11,728 tons of coals, 2,896 tons of lime, 780 tons of fish, 3,676 tons of grain, 12,870 tons of first class goods, 16,472 tons of second class goods, and 19,565 tons of third class goods.

**175.—**The number of hands employed in Cheshire in getting rock salt, and making white and refined salt, is supposed to be about 1200.

**176.—The Bristol and Exeter Railway Company** paid to the Great Western Railway Company, for six months ending 13th December, 1844, as follows:—tollage on 32,992 tons, £1483 5s. 4d., being 4d. per ton per mile; and £7679 4s. 8d. for tollage on 215,999 passengers, conveyed 7,872,066 miles, at 4d. per mile.

**177.—Between Wolverhampton and Stourbridge** there are at present about one hundred blast furnaces in work, producing about 468,000 tons of pig iron annually, to produce which nearly 4,000,000 tons of coals, lime, ironstone, and other raw materials are consumed. The export of iron from the district is about 240,000 tons annually, in addition to large quantities of heavy hardware, tin plates, glass and other goods; and Lord Ward's estate alone produces upwards of 1,000,000 tons of coal and iron annually.—BOARD OF TRADE REPORT, Feb. 28th, 1844.

**178.—**In March, 1845, there were about 2,000 miles of Railway, narrow gauge, 4 ft. 8 in., and 300 wide gauge, 7 feet.

**179.—The Cromford and High Peak Railway** is 33 miles long, a sixth part of which is covered by inclined plane machinery and stationary engines, and cost about £18 per mile for maintenance of way in 1842.

**180.—**The number of passengers carried on the Greenwich Railway on Good Friday 1842, was 8,849, and the receipts £255 5s. 3d. On Easter Monday the number conveyed was 19,875, and the receipts £530 9s. 3d.

**181.—THE SNOW AND RAILWAYS.**—The railway between Stockton and Darlington was completely choked with snow on Tuesday morning. A large number of men were employed clearing the rails for the trains. The first train from Darlington was two hours in reaching Stockton, (12 miles) having to travel first on the down line and then to cross to the up line frequently during its passage. The north mail (from Edinburgh) was thirteen hours behind its time into Darlington on Tuesday, and about eight hours late on Wednesday, the bags having to be conveyed part of the way on horseback.—RAILWAY TIMES, 5th Feb., 1842.

**182.—**The number of passengers carried on the Great Western Railway on Tuesday last (the day of the Christening of the Prince of Wales), was 6,375. Trains ran every half-hour between London and Slough, the nearest point to Windsor.—RAILWAY TIMES, Jan. 29, 1842.

**183.—**In 1842 an important dispute existed between the Manchester and Leeds, Manchester and Liverpool, and Manchester and Birmingham Railway Companies, in which it appears the latter were completely duped by the former, to the great annoyance of the Liverpool Company. The Railway Magazine of 12th February, 1842, remarks, "we have before us a plan of the two junction lines, namely, that by Hunt's Bank, and the Store-street one, proposed by the Liverpool and Manchester Company. According to this plan the distance from the Liverpool and Manchester Railway to Hunt's Bank is 1840 yards; 2260 yards more to the Manchester and Leeds junction; and 1500 yards of tunnel to the station in Store-street: in all 5600 yards. The other, or south line, is to Store-street 2,850 yards, with 1100 yards of tunnel to the Manchester and Leeds station, making a total of 3950 yards, or 1500 yards less of line and tunnel to construct by the south plan. The population around and at Hunt's Bank is stated to be 144,871, and around and at the Store-street station 173,033, or 33,662 in favour of the south line.

**184.—**From 1st August to 2nd November, 1843, the number of trains run on the Glasgow and Greenock Railway has been 1206. Of these only two have been more than twenty minutes late in their arrival, arising in both cases from unavoidable delay in the time of starting. For the same period, the steam boats of the Railway Steam Packet Company plied between Greenock and Rothesay, Gareloch-head, &c., in connection with 843 trains, and only in three cases have these boats, from storms or any other cause, failed to meet their appointed trains at Greenock. When it is considered that a distance of 21,000 miles on water, and 18,697 miles on land, is included in the above working, in which two modes of conveyance are employed, both subject to those casualties to which artificial constructions, as steam engines, ships, and railways must always be liable, as well as to other causes of delay, as storms and winds, the regularity is remarkable.—RAILWAY TIMES, December 30th, 1843.

**185.—**It appears that only one really serious railway accident, of a public nature, by which any passenger suffered while travelling by the ordinary trains, and observing the ordinary degree of caution, has occurred during the year 1843, viz., that on the North Midland Railway, on the 12th of January, 1843, by which one passenger lost his life. During the preceding year four such accidents occurred, by which one passenger only was killed, and 10 received injuries. The number of passengers travelling by railway during each year has not been less than 24,000,000, conveyed on the average about 15 miles each. This statement is sufficient to show the high degree of security which has been attained in railway travelling, and to demonstrate in the most forcible manner the advantages that have resulted from the progress of scientific improvement in point of safety as well as of speed.

**186.—**At a meeting of the West London Railway Company, 8th September, 1841, Mr. White said he had papers in his possession to prove that the Great Western Company had at one time proposed to the Kensington Canal Company, that if they would reduce their tonnage from 4d. to 3d. they (the Great Western Company) would guarantee them receipts amounting to at least £30,000 a year.

187.—In January, 1842, an offer was made to the Birmingham and Gloucester Company to send upwards of 40,000 tons of coal per annum from Birmingham to Cheltenham, 44 miles, for 4s. 9d. per ton, and another offer of 4s. 6d. per ton; or, to find men, engines, and wagons, and pay 2s. per ton, which would give the company an income of £10 per train.—*RAILWAY TIMES*, 29th Jan., 1842.

188.—**FRAUD BY A BOATMAN.**—At the Rochdale petty sessions on Monday, John Owen, a boatman, was charged with giving a false account of the weight of some goods, which he took in a vessel, on Sunday week, from Manchester to Todmorden, on the Rochdale Canal. Mr. Hardman produced the note which he had given, stating that the vessel only contained four tons, but it had been found to contain eight tons. The canal company were often imposed upon in a similar manner. The bench said it was a clear case of fraud, and convicted the defendant in the penalty of £8 and costs. It was stated there could be no mitigation of the penalty in such cases.—*MANCHESTER GUARDIAN*, 2nd Oct., 1844.

189.—**Iron brought down the Monmouthshire Canal Company's tram-roads and canal, from the 1st to the 9th July, 1842, both days included.** By tram-road—Tredegar Iron Company, 364 tons, 18 cwt.; Rhymney Iron Company, 368 tons, 15 cwt.; Harford, Davies, and Co., 482 tons, 12 cwt.; Cwmclwyn and Blaithwaite Company, 249 tons, 15 cwt.; Monmouth Iron and Coal Company, 181 tons, 18 cwt.; Coalbrook Vale Company, 100 tons. By canal, from sundry works, 2112 tons, 5 cwt.—*RAILWAY MAGAZINE*, 23rd July, 1842.

190.—**GREENWICH AND CROYDON RAILWAYS.**—Result of the increase of toll charged by the Greenwich Company to the Croydon, for the first four weeks from 10th May, 1842, compared with the same weeks the previous year:—

1841. Passengers over Greenwich line, 38,159.  
Toll at 3d. each, £476 19s. 9d. at the rate of £4,600 per annum.

1842. Passengers over Greenwich line, 20,559.  
Toll at 4d. each, £386 9s. 7d., at the rate of £3,755 per annum.

*RAILWAY MAGAZINE*, 18th June, 1842.

191.—**At a recent inquest at Broadwell, John G. Ball, Esq., one of the Coroners for Gloucestershire, remarked, that "many more persons were annually killed by waggon and carts than by railway carriages."**—*RAILWAY TIMES*, 5th Feb., 1842.

192.—**The total tonnage of goods conveyed along the Manchester and Leeds Railway, during the six months ending the 31st December, 1841, was 99,000 tons, over an average distance of 30½ miles, or about 3,000,000 tons over one mile, and the receipts from goods traffic during the same period was 44,690 6s. 6d., exclusive of carriages and live stock, which amount to £2,477 7s. 6d. If this be compared with the parliamentary estimate of goods traffic made out in 1836, it will be found to exceed the then estimated tonnage about 6 per cent., affording confirmation of the accuracy of the calculations employed in making out the traffic case, and the cautious exclusion of exaggerated data.**

193.—**In Great Britain and Ireland, 2750 miles of Canals were constructed between the years 1760 and 1824, at an expense of nearly £31,000,000, or £11,272 per mile.**

194.—**The aqueduct over the Dee on the Ellesmere and Chester Canal, at Pont-Cysyllte, is 125 feet above its bed, on 19 pairs of stone pillars, 52 feet asunder. The trough through which the vessels pass is 320 feet long, 20 feet wide, and 6 feet deep, and is entirely composed of cast iron plates. There is also a stone aqueduct over the river Ceirlog, 200 yards in length, supported on 10 arches, at an elevation of 65 feet.**

195.—**The Royal Canal in China, completed in 980, occupied 30,000 men 43 years to complete. Its length is 826 miles, besides many collateral branches. On the surface of this canal many thousand families live in vessels. The Emperor has 10,000 vessels constantly employed on it.**

196.—**With an interruption of 60 miles, goods may be conveyed by water from the frontiers of China to Petersburg, a distance of 4472 miles, and from Petersburg to Astracan, 1434 miles.**

197.—**On Dec. 4th, 1830, the 'Planet' Engine (Mr. Stephenson's) took the first load of merchandise which has passed along the railway from Liverpool to Manchester. The train consisted of 18 carriages, containing 135 bags and bales of American cotton, 200 barrels of flour, 63 sacks of oatmeal, and 34 sacks of malt, weighing altogether, 51 tons, 11 cwt., 1 qr. To this must be added the weight of waggon and oil-cloths, viz: 23 tons, 8 cwt., 3 quarters. Tender, water, and fuel, 4 tons, and 15 persons on the train, 1 ton, making a total weight of exactly EIGHTY TONS, exclusive of the engine, about 6 tons. The journey was performed in 2 hours and 54 minutes, including three stoppages of five minutes each.**

198. **It requires an engine of 200 horse power to propel a steam vessel of 500 tons, and a 300 horse power for one of 1200 tons. The paddle shaft should be 2-5ths from the head.**

199.—**A Dublin steam packet, built of iron, weighs 180 tons, burthen 281 tons, with 63 inches water-way.**

200.—**In April 1796, an Oxford newspaper announced a new invention, "Which can so far increase the profits, and decrease the expenses attending the present canals, as will amount to some thousand pounds a year." Also, "A new kind of lock, so simple in its construction, that one man may pass a boat through either way in five minutes time, without any loss of water." Also, "Instead of the present drawbridges, others attended with less expense, and which will require very trifling repairs."**

201.—**In the month of February, 1796, four flats, laden with coals from Lancashire, arrived at the Tower Wharf of the Ellesmere Canal, near Chester, being the first vessels which have navigated that part of the canal with coals.**

202.—**On May 1st, 1796, the grand tunnel on the Leeds and Liverpool Canal, between Colne and Burnley, was opened. The heaviest sailing vessel was forty minutes passing through. The length of the tunnel is 1633 yards, the height 18 feet, and 17 feet wide. This work was planned by Mr. Whitworth, and executed by Mr. Fletcher with great resolution and ingenuity, among very many difficulties.**

203.—**In 1797, the Grand Trunk Canal Company agreed to widen their canal, so as to admit the navigation of river boats, in that part of the line which extends from Fradley Heath to the tunnel at Harecastle.**

204.—**In 1797, the canal from Manchester to Stockport was opened; as was also, some short time before, the canal from Manchester to Ashton, and another from Manchester to Bolton. So general is the spirit for cutting canals in this quarter, that all the principal towns will probably be visited by water in a few years.**

205.—**In 1797, the Chester and Ellesmere Canals were connected at Chester, and boats, for the accommodation of passengers, plied regularly between Chester and Liverpool, and Chester and Beeston Brook. Goods of all sorts, for the purpose of commerce, were also forwarded by the same conveyance. The Chester Canal was also navigable to Nantwich, and a water communication was opened between Cheshire, Lancashire, and all parts of Staffordshire, Shropshire, &c. &c. &c.**

206.—**In 1799, goods were regularly conveyed upon canals from London to Bristol, South Wales, Worcester, Birmingham, Manchester, Liverpool, and Lancaster. The price for light goods from London to Bristol, was 38s. per ton; of heavy goods, 33s.; of light goods to Liverpool, 30s.; of heavy goods, 65s.; for low priced goods, heavy, and not damageable, is to Bristol, only 26s., to Birmingham, 38s., and to Manchester, 55s. per ton.**

207.—**In 1802 it was stated a canal was preferable to an iron railroad, as the carriage was much cheaper; for instance, 60 tons of corn could not be carried from London to Portsmouth on an iron railroad for less than £125 10s., but by a canal for £49 5s.**

208.—In 1800, the Oxford Canal shares of £100 stock, were worth £184 each, as far as a sale by auction can be received as a criterion.

209.—In 1800, the Peak Forest Canal, which affords a cheap and easy water communication between the Peak, the adjacent country, and the most populous parts of Lancashire, was opened on the 1st of May. The completion of this bold and difficult undertaking, through numerous hills and valleys, precipices and declivities, is an object of general admiration, and the advantages it promises to the public are of the first importance, and at £10 per cent. less than the first estimation.

210.—In 1800, four hundred and fifty shares were forfeited by the subscribers to the Kennet and Avon Canal, in consequence of defaults in the payments of the calls.

211.—In 1800, in the month of July, Mr. Yates, master and proprietor of a canal barge at Coalbrook Dale, lately went all the way, which is upwards of 400 miles by water, from that navigation to Hambro' Wharf, near London Bridge, in 14 days. He touched at Worcester, Gloucester, and other towns, with part of his cargo. This was the first barge that ever made the entire passage.

212.—In 1802 it was stated that iron railways were of great advantage to the country in general, and are made at an expense of about £300 per mile. The advantages they give for the conveyance of goods by carts and waggons, seem even to surpass, in some instances, those of boat carriage by canals.

213.—In 1802, the Duke of Bridgewater, highly to his credit, devoted much of his attention to commerce, by which he attained an immense fortune; and by means of a canal of his own, at least 40 miles in length, covered with vessels of various sizes, moving in different directions, facilitating interior communications, &c. &c., carried on an extended lucrative business.

214.—In 1802 it was stated, that since 1758, no less than 165 Acts of Parliament have received the royal assent for cutting, altering, amending, &c., canals, in Great Britain, at the expense of £13,008,199, the whole subscribed by private individuals; the length of the ground which they employ is 2,896 miles. In this aggregate of length and expense, 43 canals, being private property, are not included; and among these are those of the Duke of Bridgewater, Sir Nigel Bowyer Gresley, and the Earl of Thanet. Of these acts 90 are on account of collieries opened in their vicinity, and 47 on account of mines of iron, lead, and copper, which have been discovered, and for the convenience of the furnaces and forges working thereon. Eight of these furnaces, and twelve forges, in one county only, consume 24,284 tons of iron ore, and 12,324 tons of pit-coal annually, and manufacture in the same time, 13,104 tons of iron goods. More than 100,000 tons of pit-coals are annually taken down the Severn from the Madeley and Broseley collieries to the towns and villages in the neighbourhood.

215.—In the Staffordshire district, in 1836, 5 or 6000 tons of iron were made weekly; 90,000 tons per annum were sent to Manchester. In North Wales, 560 tons of pig iron were manufactured per week.

216.—In 1836, the average weight of cotton, wool, and cotton goods, passing between Manchester and Ashton, was about 19,764 tons; Manchester and Staley-bridge, 20,644 tons; Manchester and Mottram, 9672 tons; Manchester and Glossop, 10,294 tons; Manchester and Hyde, 18,044 tons; and general merchandise between Manchester and Ashton, 16,901 tons; Manchester and Staley-bridge, 8879 tons; Manchester and Mottram, 1612 tons; Manchester and Glossop, 1602 tons; Manchester and Barnsley, 6396 tons; coals and merchandise between Manchester and Hyde, 11,440 tons; and 60,000 tons of slate and stone by the Ashton canal, to sundry places.

217.—In 1837, about 52,000 tons of malt, flour, and grain, passed from Nottinghamshire and Lincolnshire to Manchester. The estimate of the Cheshire Junction Railway Company, for the Eastern Counties' traffic, in and out of Manchester, was 1700 tons per week.

218.—In the year 1824, the quantity of traffic between Sheffield and Manchester, was estimated by Mr. Swires, of Barnsley, for Telford's intended canal, at 14,062 tons; in the year 1831, the quantity was estimated at 20,000 tons, for Stevenson's railway; and in 1837, at 24,220 tons, by Mr. Skidmore, for the Sheffield and Manchester Railway.

219.—In 1842 there were nearly 20,000 miles of turnpike roads in Great Britain.

220.—In the year 1824, a calculation was made for Telford's canal to Sheffield, that there were 77,500 acres of cultivated, and 52,000 acres of uncultivated, land, on the line of the intended canal, which would require three tons of lime per acre every six years for the cultivated land, and for the uncultivated, five tons every ten years; making an average of half a ton per acre per annum, or 64,750 tons per annum.

221.—The gross quantity of silicated soap, made in all the towns of Great Britain, (except the Metropolis) during the year ended the 5th of January, 1845, was 1,851,403lbs.; the quantity of other hard soap, 118,706,738lbs.; and the quantity of soft soap, 11,406,715lbs. In the city of London there were made 627,209lbs of silicated soap; 40,693,297 lbs. of other hard soap; and 791,470lbs. of soft soap; thus making a grand total for England of 2,478,612lbs. of silicated soap; 156,406,035lbs. of other hard soap; and 12,198,185lbs of soft soap. The quantity made in Scotland during the same period, was 127,740lbs of silicated, 10,890,615lbs. of other hard, and 5,251,161lbs of soft soap. The total quantity of soap exported from this country in the year 1844-5, was, of hard soap, 17,006,159lbs.; of soft soap, 8,896lbs., of which a total amount of drawback of £111,641 was allowed. The allowances to manufacturers of woollens, amounted to £47,856, on 6,634,089lbs. of hard, and 7,895,806lbs. of soft soap; the allowance made to manufacturers of silk, of £13,544, on 1,454,373lbs. of hard, and 1,046,238lbs. of soft soap; and the allowance made to cotton manufacturers, to £20,255, upon 2,525,178lbs. of hard, and 954,437lbs. of soft soap. The total amount of these allowances was £81,128, upon 10,813,839lbs. of hard, and 9,399,208lbs. of soft soap. The quantity of soap exported to Ireland from England and Scotland, in the year 1844, was 10,509,238lbs. of hard, and 269,183lbs. of soft soap; the amount of drawback being £70,144. The quantity of soap imported into Great Britain during the same period consisted of 955 cwt. of hard soap, 35 cwt. of soft soap, and 26 cwt. of Naples soap. The amount of duty received was, on the hard soap, £886; on the soft soap, £35; and on the Naples soap, £91.

222.—In 1841 the celebrated iron-works of Sir John Guest, Bart., and Co., situated within a short distance of Merthyr-Tydvil, Glamorganshire, called Dowlais, which extends over nearly 70 acres; the buildings constituting which are chiefly cottages, occupied by the numerous workmen engaged at this extraordinary establishment, at which so many of the edge-rails, with which both British and foreign railways are laid, have been manufactured. Of the 40 acres occupied by the Dowlais Works, nearly seven are covered with the various buildings, forges, &c. The mineral property belonging to these works extends over and through nearly 2000 acres. There are eighteen blast furnaces, capable of making 1600 tons of iron per week, which are blown by seven powerful steam-engines, two of which have 12 feet blowing cylinders and 9 feet stroke. The steam-power employed in the different operations is fully equal to 2000 horses, besides which there are twenty water balances for raising the coal and ore to the surface; there are also 300 horses, and seven locomotive engines, employed in carrying the iron, coal, and cinder, to their different destinations. The consumption of fuel, per 24 hours, is at present equal to 1100 tons, including that used for domestic purposes. It is only about ninety-nine years since the first bar of malleable iron was rolled at Dowlais, about 450 tons of rails and 450 tons of bars are finished weekly.

223.—SALT.—The exports in 1836, were chiefly to the United States, the West Indies, Russia, North American Colonies, and Belgium, and consisted altogether of 9,622,427 bushels, of the declared value of £173,928.

224.—In 1844, about 6000 tons of flour were sent from Chester to Manchester.

225.—The number of Bricks made in Great Britain in the year 1832 was 998,346,387; the duty on which amounted to £294,322. The number of Tiles made was 74,117,953; the duty on which produced £37,010.

226.—Metals imported into and exported from the United Kingdom in the year 1832.—Iron, Foreign, imported in bars or unwrought, 18,961 tons, 12 cwt. 2 qrs.; in rods, pigs, wire, old broken, and old cast iron, &c., 192 tons, 1 qr. 5 lbs.; iron ore, 377 tons, 17 cwt. 1 qr. 19 lbs.; chromate of iron, 339 tons, 17 cwt. 15 lbs.; unwrought steel, 622 tons, 4 cwt. 2 qrs. 9 lbs.; steel wire, 50 lbs.; iron and steel manufactures, not otherwise described, entered by weight, 197 tons, 64 cwt.; entered at value £2772 18s. 3d.—Exported: in bars or unwrought, 3,450 tons, 12 cwt. 3 qrs. 2 lbs.; in rods and pigs, 56 tons, 13 cwt. 15 lbs.; unwrought steel, 810 tons, 13 cwt. 8 lbs.; steel wire, 52 lbs.; iron and steel manufactures, not otherwise described, entered by weight, 197 tons, 64 cwt.; entered at value, £345.—Iron, British, exported: bar iron, 74,024 tons, 5 cwt. 1 qr. 24 lbs.; bolt and rod iron, 6,988 tons, 1 cwt. 3 qrs. 18 lbs.; pig iron, 17,566 tons, 1 cwt. 1 qr. 13 lbs.; cast iron, 12,495 tons, 1 cwt. 1 qr. 12 lbs.; iron wire, 666 tons, 7 cwt. 3 lbs.; anchors and grapnels, 1,606 tons, 18 cwt. 3 qrs. 3 lbs.; hoops, 9,417 tons, 14 cwt. 1 qr. 6 lbs.; nails, 4,347 tons, 18 cwt. 1 qr. 2 lbs.; other wrought articles (excepting ordnance), 18,595 tons, 3 qrs. 17 lbs.; old iron for re-manufacture, 773 tons, 6 cwt.; unwrought steel, 1,112 tons, 7 lbs.; British hardware and cutlery, 15,294 tons, 15 cwt. 1 lb.; the declared value of which was, £1,433,297 17s. 6d.—Copper, Foreign, imported: unwrought, partly wrought, or old for re-manufacture, 2,260 tons, 2 qrs. 1 lb.; copper ore, 79,219 cwt. 1 qr. 21 lbs.; manufactured, entered by weight, 1 cwt. 1 qr. 16 lbs.; entered at value, £4,636 8s. 10d.—Exported: unwrought, partly wrought, or old for re-manufacture, 1,864 cwt. 3 qrs. 3 lbs.; manufactures entered by weight, 1 cwt. 1 qr. 16 lbs.; entered at value, £157.—Copper, British, exported: unwrought, 77,497 cwt. 3 lbs.; coin, 2 cwt.; sheets, nails, &c., 79,994 cwt. 10 lbs.; wire, 13 cwt. 2 qrs. 18 lbs.; wrought copper of other sorts, 37,155 cwt. 1 qr. 19 lbs.; total of British copper exported, 194,612 cwt. 22 lbs.; smelted in the kingdom from foreign ore, 13,894 cwt. 1 qr. 18 lbs.—Tin, imported: 29,203 cwt. 1 qr. 8 lbs.—Exported: British, 31,837 cwt. 2 qrs. 3 lbs.; Foreign, 21,719 cwt. 3 qrs. 13 lbs.—Lead, imported: Pig lead, 1,090 tons, 4 cwt. 9 lbs.; lead ore, 269 tons, 10 cwt. 4 lbs.; white lead, 27 tons, 4 cwt. 1 qr. 1 lb.; total, 1,386 tons, 18 cwt. 1 qr. 14 lbs.—Exported: Pig and rolled lead and shot, 12,181 tons, 3 cwt. 23 lbs.; litharge, 432 tons, 14 cwt. 12 lbs.; red lead, 396 tons, 5 cwt. 2 qrs. 12 lbs.; white lead, 652 tons, 5 cwt. 3 qrs. 15 lbs.; lead ore, 235 tons, 15 cwt.; total of British lead exported, 13,898 tons, 3 cwt. 3 qrs. 6 lbs.; Foreign, pig lead, 956 tons, 15 cwt. 3 qrs. 19 lbs.; white lead, 22 tons, 18 cwt. 5 lbs.

227.—Coals, Culm, and Cinders, sent Coastways in 1837.—7,090,091 tons. From Newcastle, 2,892,494 tons were sent to other parts of the United Kingdom; from Stockton, 1,145,837 tons; Sunderland, 932,136 tons; Swansea, 491,966 tons; Newport, 480,670 tons; Whitehaven, 409,493 tons.—The quantity exported was 1,118,610 tons, including 6,447 tons of cinders, and 1,148 of culm. The quantity exported to France in 1836 was 205,140 tons, and in 1837 amounted to 272,133 tons. Quantity of coal brought coastways and by inland navigation to the Port of London, in 1836, 2,399,551 tons; in 1837, 2,629,321 tons.

228.—The Quantity of Iron manufactured in France in 1826 was 202,756 tons pig iron, and 143,336 tons of malleable iron; and in 1836 the quantity of the former was increased to 303,739 tons, and of the latter to 201,691 tons. Total in 1826, 346,092 tons; in 1836, 505,430 tons. The importation of iron has not diminished; and in 1836 the value of foreign iron imported was greater than in any former year, being £252,702, on which a duty of £122,842 was charged. In 1817 the value of the iron imported was £202,206; in 1821, £226,571; in 1826, £218,212. These were years in which the quantity imported was largest.

229.—EARTHENWARE.—Exported in 1836: 62,795,817 pieces; declared value, £837,774, of which 31,024,350 pieces of the value of £486,512 were for the United States of America.

230.—GLASS.—Exported: 250,974 cwt. of the declared value of £586,601; besides a quantity entered at the declared value of £16,783.

231.—The dimensions of the *Great Western* and her machinery are as follows:—

	Ft.	In.
Length of vessel between the perpendiculars.....	212	0
Length of vessel over all.....	236	0
Depth of hold.....	23	3
Extreme breadth of beam.....	35	4
Width measured outside the paddle-cases.....	58	4
Draught of water when loaded.....	16	0
Burthen in tons—1,340 tons.		
Diameter of paddle-wheels.....	28	0
Length of paddle-boards.....	10	0
Height of centre of shafts.....	18	5
Diameters of shafts—15 and 16 inches.		
Width of bearings.....	1	8
Diameter of cylinders.....	6	1
Length of stroke.....	7	0
Diameter of air-pump.....	3	4
Length of stroke of ditto.....	3	6
Length from centre of shaft to centre of cylinder.....	19	6
Width from centre to centre of engines.....	13	0
Four boilers of equal dimensions } Length. 11 6		
with separate furnaces and flues } Width.. 9 6		
		Height. 16 9
Weight of engines—about 200 tons.		
Power of engines—450 horses.		
Weight of boilers—100 tons.		
Water in boilers—80 tons.		

232.—The following Statements are taken from the Report made to the Board of Trade on the frequency of accidents and loss of life in steam vessels. They must be considered as only an approximation to the real number of accidents. With two or three exceptions, the whole of these accidents occurred within the last ten years, to which period the inquiry was confined. (1839.)

Vessels.	Ascertained Number of Lives lost.
40. Wrecked, foundered, or in imminent peril.....	308
23. Explosions of boilers.....	77
17. Fires from various causes.....	2
12. Collisions.....	66
92.....	453
Computed number of persons lost on board the ERIN, FROLIC, and SUPERB.....	120
From waterman's and coroners' lists in the Thames, exclusive of the above, during the last three years.....	40
From a list obtained in Scotland, exclusive of the above, being accidents in the Clyde during the last ten years.....	21
	634

The greatest ascertained number of lives lost at any one time occurred by the wreck of the ROTSAV CASTLE, when.....	119 persons perished.
The greatest number at any one time from collision.....	62 ..
The greatest number at any one time from explosion.....	24 ..
The greatest number at any one time from fire.....	2 ..

233.—The Quantity and Value of Coal annually raised in France have been more than trebled within the last twenty years. In 1836 there were raised 2,544,885 tons, of the value of £1,064,282; the quantity raised in 1816 having been 795,012 tons, value £385,533. The productiveness of the mines has not kept pace with the increasing demand for coal; and the quantity imported has been nearly doubled within the last ten years, having been 495,325 tons in 1826, and 949,373 tons in 1836.

234.—In 1837, the Quantity of Ore produced from the Mines in Cornwall was 140,753 tons; copper, 10,823 tons. Value of the Ore, £903,613.

235.—At Stockport is an immense viaduct, which crosses the Mersey at an elevation of 111 feet, measured to the top of the parapet. The rails are, at this part, about 120 feet above the foundations of the viaduct, which consists of 26 arches, of which 22 are of 63 feet span. The extreme length of the structure is 1,792 feet, its mean elevation 90 feet, and its width 32 feet; and upwards of 11,000,000 of bricks, together with nearly 400,000 cubic feet of stone, have been used in its construction. The cost of this work was about £72,700.

236.—Quantity of Coal brought into the Port of London in 1841: Coastways, 2,909,144 tons; by inland navigation, 33,594 tons. Total, 2,942,738 tons.

237.—Coal, Culm, and Cinders exported in 1841: Coal, 1,831,554 tons; cinders, 16,514; culm, 226. Total, 1,848,294 tons; declared value, £675,287. The total quantity of coal shipped coastwise to the various ports of the United Kingdom was 7,649,899 tons. Of 1,848,294 tons of coal, culm, and cinders exported in 1841, France took 451,003 tons; Germany, 173,487; Holland, 173,378; Denmark, 151,146; Russia, 77,152; British West Indies, 71,311; East Indies and China, 63,920; British North America, 55,177; United States, 52,273; Malta, 50,131 tons; and to other parts the quantity exported was less than 50,000 tons to each. The quantity exported to foreign countries in British shipping was 1,039,142 tons; in foreign shipping, 464,424 tons; total, 1,503,566 tons. Of 344,728 tons exported to British Possessions, the whole, with the exception of 6,190 tons, was exported in British ships. From 1832 to 1837 inclusive, the average annual quantity of coal exported was 692,215 tons; and from 1838 to 1841 inclusive, 1,466,288 tons annually.

238.—Number of days occupied in performing voyages from the undermentioned Ports to Liverpool, by all Vessels laden with Flour or Corn, in 1841—

Total Number of Ships.		Average Length of Voyage.	
From New York	30	23	days.
.. Boston	1	16	..
.. Philadelphia	11	30	..
.. New Orleans	20	45	..
.. Baltimore	4	32	..
.. Petersburg	1	32	..
.. Alexandria	1	42	..

Total.... 68 Ships.

239.—The following remarks are extracted from a letter in the RAILWAY TIMES, of 22nd January, 1842, to show the advantage of steam over horse-power; "The Edinburgh" being worked by horses, and "The Birkenhead" by steam.—By referring to the published statements of the affairs of the Edinburgh and Dalkeith Railway during the years 1838–39, I find that the average number of passengers was 274,064 per annum, conveyed a distance of 8½ miles, at a cost of £8,233. By a simple rule of proportion it appears, that if these passengers had been carried 16 miles instead of 8½, the cost would have been £15,967. Now, I find by the last Birkenhead report, that by adding £2,500 for maintenance of way, not included in the expenditure of the first year, and by deducting interest on loans, the cost of carrying 309,000 passengers the 16 miles amounts to £15,714, being a less cost (in proportion to the length travelled) for the carriage of a greater number of passengers, at nearly four times the speed.

240.—CHEESE.—The gross total quantity of cheese imported into the several ports of the United Kingdom during the year ending the 5th of January, 1845, amounted altogether to 218,860 cwt., of which 160,654 cwt. were imported from Europe, 53,115 cwt. from the United States of America, and 81 cwt. from the British Colonial possessions. The different qualities of the cheeses imported are not given. The aggregate quantities of European cheese, exclusive of British cheese, exported from England during the years above-mentioned, amounted in 1840 to 8,620 cwt.; in 1841, to 9,116 cwt.; in 1842, to 5,991 cwt.; in 1843, to 7,100 cwt.; and in 1844, to 6,920 cwt.

241.—IRON AND COAL.—The *Harrisburg Keystone* states, that the iron mines and manufacturing of Pennsylvania already yield more than 18,000,000 dollars per annum, and the coal about 9,000,000 dollars per annum. The coal mines of England, according to the same authority, yield 34,000,000 of tons annually, while there never yet has been mined in Pennsylvania more than about 1,000,000 a year.—RAILWAY MAGAZINE, 18th Dec., 1841.

242.—The following statistics were given at the half-yearly meeting of the Grand Junction Railway Company, held 1st August, 1842:—"Upwards of 7,000 troops had been conveyed on the line during the half year, and principally within the space of one week. The authorities at the Horse Guards and the inspecting field officer have expressed their thanks for the manner in which this service was conducted.—The number of applications for missing luggage for the year ending 30th June, 1841, including articles of every description supposed to have been left on the Grand Junction line, was 100; the number recovered by the office was 79; and there is reason to believe that a great part of the remainder never came near us. In the last year the number said to have been left was 101; the number recovered 75.—The number of complaints by passengers and other parties against the establishment, for the year ending June, 1841, was 144, in which no blame could be attached to the company or its servants, except in 44 instances. In the year ending June, 1842, the complaints had fallen to 101, in which the Company was to blame 27 times; this included all complaints arising from detentions and late trains.—The amount of compensation paid by the Company in the departments of coaching, goods, live stock, and general account, including all settled claims, was, for the year ending June, 1841, £987 8s. 10d., ditto ditto for the year ending June, 1842, £618 5s. 8d. with a much larger traffic.—That, with regard to the punctuality of the railway, it appeared that in twelve months ending June, 1841, out of 4172 trains of different classes, 3636 were to time, or within fifteen minutes, leaving 536, or 12½ per cent. out of time; that in the year ending June, 1842, out of 4,172 trains, 3912 were to time, or within fifteen minutes, leaving 260, or 6¼ per cent. out of time, being only half the amount of irregularity of the preceding year. That it must be remembered that the irregularities caused by connecting lines of railway, and the inevitable detention occasioned by deep snow, were included in these statements."

243.—In 1836 the following Traffic was proved to pass between York, Leeds, Hull, Manchester, &c. From York to Pontefract and Doncaster, 672 tons, at the average charge of from £2 to £2 13s. 4d.; the time occupied by the journey being from six to nine hours. From York to Hull and Selby, 1300 tons, at the average charge of 13s. 4d. to 16s. 8d. from York to Selby, and from £1 to £1 13s. 4d. from York to Hull; the time of the journey to Selby being five hours, and to Hull sixteen hours. From Leeds and Wakefield and the respective neighbourhoods about 98,000 tons of coal, and 4,000 tons of stone annually, at the average charge of 3s. to 6s. per ton; from Brotherton and Knottingley to York, 10,000 tons of lime annually, at the average charge of 3s. 9d. per ton; from York to Leeds and Wakefield, 30,000 tons of flour, grain, shelling, &c., at the average cost of 7s. per ton. The time occupied in the journey is from four to ten days, a fortnight, and three weeks. From Manchester to Hull, 43,100 tons of cotton twist manufactured, and woollen goods, the time of the journey being from six days to two or three weeks. Between York and Leeds, York and Selby, and Hull, York and London, 8,000 tons per annum of general merchandise. 110,600 sheep and 53,000 cattle are driven from York to Leeds annually, the former at the cost of 24d. to 6d. per head, and the latter from 1s. 6d. to 3s. per head; the time occupied in the journey being from one to three days. The agricultural produce sent by carts from York to Leeds annually is 3950 tons. The goods sent by wagon from York to Leeds averages 3675 tons per year, at the average charge of from 13s. 4d. to £2 per ton; the time of the journey being twelve hours.

244.—In 1845 it was estimated that upwards of £100,000,000 was invested in canals.

**245.—A correspondent in the RAILWAY MAGAZINE**, 19th March, 1842, says,—that the cost of conveying goods on the London and Birmingham line is 1'15ad. per ton per mile, the net load per engine is 40'65 tons, the gross load is 88½ tons, the number of wagons is 18, and the speed is 20 miles an hour. On the Birmingham and Gloucester line the net load per engine is about 25 tons, the gross load 45 tons, the speed 16 miles an hour. The cost of locomotive power, &c., is 1s. 7d. per mile run, including the Lickey. This sum divided by 25 gives 3d. per ton per mile. For the other charges I must proceed to inference. Excluding from the London and Birmingham charges what is not common to the two lines, the cost, exclusive of locomotive power, is 3d. per ton per mile. But this is on a larger traffic, where the engines are drawing in the ratio of 8 to 5. We cannot therefore be too high in taking the charges on the Birmingham and Gloucester line, exclusive of locomotive power, at 3d. per ton per mile. Hence the whole charges are not less than 1½d. per ton per mile, as stated by the chairman at the meeting. Now let us look back. When the engines were costing 2s. 9d. per mile run, the loads remaining the same, the cost would have been 2d. per ton per mile. When they were costing 1s. 11½d., the whole cost would have been 1½d. per ton per mile. Again, let us look forward. The engines are capable of drawing throughout the year under the actual circumstances of the line, and on an average, about 60 tons gross at 16 miles an hour. They may also be reduced in expense to about 1s. 5d. per mile run. They may then have locomotive power, at less than a halfpenny per ton per mile, if out of a gross load of 60 tons they can get a net load of 35 tons, and therefore may bring the total charges to 1½d. per ton per mile.

**246.—CURED PROVISIONS.**—The quantities of cured provisions imported into the United Kingdom were as follows.—Of salted beef, 60,633 cwt. in 1843, and 106,766 cwt. in 1844; of salted pork, 27,118 cwt. in 1843, and 30,780 cwt. in 1844; of hams of all kinds, 6,919 cwt. in 1843, and 6,732 cwt. in 1844; and of bacon, 448 cwt. in 1843, against 36 cwt. in 1844. Of the 106,766 cwt. of salt beef imported in 1844, 2,107 cwt. came from Russia, 1,256 cwt. from Denmark, 930 cwt. from Prussia, 5,042 cwt. from the Hanseatic towns, 76,660 cwt. from the United States of North America, 10,596 cwt. from the British settlements in Australia, and 10,016 cwt. from the British Colonies in North America. Of the 30,780 cwt. of salt pork concurrently imported, 24,342 cwt. came from the United States, 2,236 cwt. from the British North American Colonies, and 2,709 cwt. from the Hanseatic towns. Of the 6,732 cwt. of hams imported in 1844, 2,616 cwt. came from the Hanseatic towns, and 2,704 cwt. from the United States. The quantities retained for home consumption bore a very small proportion to the quantities imported, viz., 5,204 cwt. of salt beef in 1844 against 3,019 cwt. in 1843; 1,311 cwt. of salted pork in 1844 against 6,308 cwt. in 1843; 3,495 cwt. of ham against 3,895 cwt. in 1843; and 36 cwt. of bacon in 1844 against 503 cwt. in 1843. The amount of duties received were, upon the salt beef, £670 and £766; upon the salt pork, £1,295 and £394; upon the hams, £2,357 and £2,391; and upon the bacon, £138 and £23, respectively, in the years 1843 and 1844. The quantities re-exported as merchandise in 1843 and 1844 were—of salted beef, 6,700 and 10,189 cwt.; of salt pork, 25,847 and 6,001 cwt.; of hams, 1,382 and 1,738 cwt.; and of bacon, 51 cwt. and 1 cwt. The British West Indies and the African settlements appear to have taken the largest quantity of these cured provisions. The quantities taken for ships' stores amounted—of salt beef to 37,432 cwt. and 77,248 cwt. in 1843 and 1844; of salt pork, to 19,145 and 16,787 cwt. in 1843 and 1844; of hams, 1,340 and 1,298 cwt. in 1843 and 1844; of bacon, *nil*. Thus it is evident that the greater portion of the cured provisions imported into this kingdom from foreign parts, is not consumed at home, but taken out for ships' stores.

**247.—THE IRON TRADE.—South Wales.**—Of the one hundred and thirteen furnaces in blast in this district, sixty-one are in full make, and fifty-one at the reduction of twenty-five per cent. The average weekly make is not given, but may be taken at eighty-five tons, thus giving an aggregate make of 6000 tons weekly, or 468,000 tons per annum.—RAILWAY MAGAZINE, April 16th, 1842.

**248.—GLASS.**—The following were the quantities of glass charged, and the amount of duty respectively imposed on the different descriptions of glass in England, during the year 1844-45, viz.,—Flint glass, 9,529,294 lbs., and £55,271; plate glass, 29,765 cwt., and £93,759; crown glass, 99,180 cwt., and £382,710; German sheet glass, 81,560 cwt., and £121,782; common bottle glass, 345,810 cwt., and £127,084. The quantities exported, upon which drawback was allowed, were of flint glass, 11,277 cwt.; of plate glass, 116,955 feet; of crown glass in tables, 1,527 cwt.; of crown glass in panes, 6,661 cwt.; of German sheet glass, 7,656 cwt.; and of common bottle glass, 213,056 cwt. It further appears, that the quantities of glass retained for home consumption in the United Kingdom for the year 1844-45 were,—of flint glass, 83,712 cwt.; of plate glass, 24,405 cwt.; of crown glass, 93,347 cwt.; of German sheet glass, 23,176 cwt.; and of common bottle glass, 193,108 cwt. The net amount of duty received thereon amounted to the sum of £645,715. The amount of drawback or allowance on glass for the use of churches during the year 1844-45 was £1,343. The quantities imported into the United Kingdom during the same period, from various countries of Europe, &c., were—of crown or any window glass not exceeding one-ninth of an inch in thickness, 6,680 cwt.; of German sheet glass, white or coloured, 1,260 cwt.; of all glass one-ninth of an inch in thickness—all silvered or polished glass, of whatever thickness—and plate glass however small each pane, plate, or sheet, 18,915 square feet (superficial measure); and of flint and cut glass, 2,883 cwt. The quantities exported from the United Kingdom of the same description of glass as those which we have already enumerated above, were respectively, 6,241 cwt.; 906 cwt.; 16,971 square feet; and 1,448 cwt. The quantities of British glass exported from England in 1844-45 were,—of flint, 11,277 cwt.; of plate, 116,955 feet; of crown, in tables, 1,526 cwt.; of crown, in panes, 6,661 cwt.; of German sheet glass, 17,695 cwt.; and of common bottle glass, 213,056 cwt.

**249.—TUNNELLING.**—Mr. Brunel lately stated that the Box tunnel of the Great Western cost £100 per yard. The White Ball tunnel, on the Exeter, cost but £53. The Cheltenham tunnel, in connexion with the Great Western, was estimated at £136 per yard: it cost but £34 per yard. And to show the reduction in this department alone, he mentioned that, within the previous three weeks, he had contracted for tunnelling at £28 per yard.—RAILWAY CHRONICLE, November 23rd, 1844.

**250.—STEAM NAVIGATION ON THE THAMES.**—There are now sixteen steam vessels running daily between Gravesend and London, the same number to Woolwich, twenty to Greenwich, numerous small steamers, the boats of the Waterman's Company, and of the Old Woolwich Company—between Greenwich and Blackwall; there are eight steam vessels constantly going up and down the river on their way to and from Dover, Ramsgate, Margate, Herne Bay, Southend, and Sheerness. The General Steam Navigation Company muster forty-nine steamers, all sailing from London, a fleet superior to the steam fleet of any of the continental powers, and which carry merchandise and property to the amount of £1,000,000 sterling weekly, and whose consumption of coals exceeds in value £50,000 per annum. There are not less than fifty other large steam vessels trading between London and various ports in Great Britain and Ireland; twenty-three steam tugs, carrying from 30 to 100-horse power each, exclusively engaged in towing ships, between Gravesend and the Pool; twenty iron and wooden steamers navigating the river above bridge, between London Bridge and Chelsea; two constantly running between the Adelphi pier and Putney, and five to Richmond. Among the novelties lately introduced in steam navigation is a vessel with locomotive engines, similar to those on a railway, working at a high pressure, and the Waterman, No. 7, with Stevens's patent paddles, which enter the water at an angle of 35°, produce very little swell, avoid the back water thrown up by the ordinary paddles, and produce little vibration. With two or three exceptions, the steam engines in our river vessels are worked at a low pressure.—RAILWAY MAGAZINE, 28th May, 1842.

**251.—LARGE IRON SHAFT.**—A shaft of wrought iron, weighing about 16 tons, was shipped from Liverpool, for the Great Western Steamship Company at Bristol, being, we understand, the largest piece of wrought iron ever manufactured in this or any other country. It was manufactured at the Mersey Steel and Iron Works in Liverpool.—*RAILWAY MAGAZINE*, 23rd April, 1843.

**252.—In July, 1843, Scotch Pig Iron** was sold at Glasgow at less than 40s. per ton. Welch and Staffordshire pig iron was also sold at proportionate rates, according to quality, some of the inferior makes at 40s. per ton, long weight. Scotch pig iron has now, by the spirit of speculation, reached 100s. per ton, and is sold in large parcels at this price for delivery in all the year. Here, then, we have an advance, five-eighths of which has taken place in the last month, of 150 per cent. On examination of the progress of this advance, we find that it has been mainly effected by dealers and speculators; that large parcels of iron, not yet raised from the bowels of the earth, have changed hands in many instances (the same ideal lot) twenty times at the least, and that which has been so frequently transferred paid for, relying upon the iron-master's future power to convey it to the unenviable possessor of the "scrip" at the latest highest price of the day.—*LIVERPOOL COURIER*, March 19th, 1845.

**253.—The total quantity of copper ore,** imported in the year 1841, was 173,701 cwt. The total quantity of British copper exported from the United Kingdom during the same period was 118,531 cwt., and the quantity of copper smelted in the United Kingdom from foreign ore (unwrought in bricks, pigs, &c.), was 201,743 cwt. The total quantity of British copper exported from the port of London, in the year 1841, was 54,368 cwt.

**254.—The total quantity of British tin** exported from the United Kingdom, in the year 1841, was 23,340 cwt., and of foreign tin 25,344 cwt. The total quantity of tin imported into the United Kingdom, during the same period, was 28,434 cwt.

**255.—The total quantity of lead and lead ore** imported into the United Kingdom, in the year 1841, was 4,550 tons. The total quantity of British lead and lead ore exported from the United Kingdom, during the same period, was 14,979 tons.

**256.—The quantity of British hardwares** and cutlery exported from the United Kingdom, in the year 1841, was 17,667 tons, the declared value of which was £1,623,961.—*RAILWAY MAGAZINE*, May 21st, 1842.

**257.—RAW IRON.**—The *Prussian State Gazette* gives the following statistical table of the quantity of raw iron annually produced in Europe:—Great Britain, 29,632,000 quintals; France, 6,763,900; Russia, including the Ural provinces, 3,820,000; Belgium, 2,917,350; that part of Germany comprehended in the Customs' Union, 2,550,762; that part not included in the Union, 143,500; Austrian Monarchy, 1,829,000; Sweden, 1,455,245; Sardinia, 245,000; Tuscany, 120,000; Parma, 28,000; Modena and Naples, 15,000; Spain, 252,000; Poland, 184,000; Norway, 107,420; Luxembourg, 60,000; Switzerland, 14,000; Portugal, 8,400. The bar iron taken immediately from the mines may be estimated at 236,565 quintals.—*RAILWAY MAGAZINE*, April 16th, 1842.

**258.—The Tidal Dock, Southampton,** into which water was admitted on Saturday, June 18th, contains 16 acres of water; the depth, at low water, spring tides, 18 feet; rise of tide from 13 to 15 feet; the whole lined with masonry, at the base 12 feet thick; counterforts, or buttresses, 18 feet, narrowing in due proportion, as the elevation advances; linear feet of wharf from 8,300 to 3,500 feet.—*RAILWAY MAGAZINE*, 18th June, 1842.

**259.—GREAT PATENT CASE.**—The case Neilson & others, v. the Househill Coal and Iron Company which had occupied the Jury Court six days, terminated on Thursday evening. The jury after deliberating an hour and a quarter, returned a verdict for the pursuers on all the issues—Damages, £3,060.—*RAILWAY MAGAZINE*, April 16th, 1842.

**260.—THE STATE OF THE CANAL INTEREST.**—On Tuesday Lord Campbell presented a petition from the Birmingham Canal Navigation Company, who might be considered as representing the canal interest in opposition to railways. The petitioners said they were no enemies to railways, and were perfectly willing to enter into a fair competition with them; but they asked for a provision against the most unfair attempts that railways were making against them. They allowed that, as far as passengers were concerned, they were beaten by the railways, but in the carriage of goods, with fair play, they could beat the railways. The railways, however, had entered into a scheme for carrying goods, for the present only, at such a low rate of charge as utterly to ruin the canals, and then, when the canals were utterly ruined, they would have in their own hands the carriage of goods as well as passengers, and so would have a complete monopoly, to the serious injury of the public. They then stated this fact—that the carriage of a ton of passengers was not more expensive than a ton of luggage by the railways; but that, to ruin the canals, they charged in the third class ten times as much, and in the first class thirty times as much, for passengers as for luggage: they charged too much for passengers, and too little for goods, and if they carried nothing but goods, would be utterly ruined; but from the charge on passengers they were able to carry goods at such a rate as to be ruinous to canals. The petitioners therefore asked for some remedy for that state of things; that in any bill that was passed on the subject, there might be a provision against such an abuse; and that some ratio might be required to be preserved between the charge for passengers and that for goods.—*MIDLAND COUNTIES HERALD*, 13th March, 1845.

**261.—TOLL FOR COALS IN 1842.**—At a meeting of the North Midland Railway Company at Leeds, 26th February, 1842, Mr. ALSTON, of Liverpool, said—"On the 23rd of October last, the quantity of minerals conveyed was 949 tons, including everything. On the 30th of October, the number of tons was 2,159, no very great increase in proportion to the reduction of charge; on the 29th of January, 2,295 tons were conveyed; and in the week ending the 5th of February, 2,473 tons;—and Mr. BRANCKER, of Liverpool, said—"With respect to the coal traffic, he had the authority of Mr. Booth, secretary of the Liverpool and Manchester line, a gentleman of great practical experience, to the effect that unless it paid 2d. per ton per mile, it was not worth having, and even at that it was very questionable. He (Mr. Branker) had asked him what he thought of the charge of 1d. per ton on the North Midland line, and he replied—"Take the wear and tear into consideration, and you have nothing left; in fact, you do not get your own money back again." (Hear, hear.) There was not a single line about which the auditors had inquired that conveyed coal for less than from 1½d. to 1½d., and to 2d. per ton. Mr. Booth had further said, that he had had several applications made to him by coalowners, for a reduction in the charge, and the uniform answer he returned was, that if they did not think proper to pay 2d., they were quite at liberty to go off the line, and get their coals conveyed by some other means. On the Leicester and Swannington road, at the commencement of their traffic, the Company charged 2d. per ton, on a line costing £28,000 per mile, including engines and all working materials. For the first ten years their dividend rose from 7 to 8 per cent. In 1840, the charge was reduced to 1½d., and what was the consequence? Why, that last year the dividend fell to 6 per cent. (Hear, hear.) Now 6 per cent. was only a net profit of £2,900 for conveying 93,000 tons of coal and minerals.—Mr. MARR, of York, remarked with reference to the conveyance of minerals, that the Durham Railway Company, who derived their income from such traffic, were now realising 15 per cent. on the paid up capital, and they only charged from 1d. to 3d. per ton per mile.

**262.—EXTRAORDINARY MASS OF SILVER ORE.**—A stone weighing 234 lbs., value £350, and yielding 45 to 50 per cent. silver, has been lately imported from Chili, and is now in the possession of Messrs. Johnson and Coek, of Hatton Garden.—*RAILWAY MAGAZINE*, April 16th, 1842.

**263.—TALLOW, &c.**—The gross total quantities of tallow returned for home consumption in the United Kingdom, amounted in 1835 to 1,005,276 cwt.; in 1836, to 1,314,065 cwt.; in 1837, to 1,289,514 cwt.; in 1838, to 1,160,167 cwt.; in 1839, to 1,148,192 cwt.; in 1840, to 1,181,513 cwt.; in 1841, to 1,241,278 cwt.; in 1842, to 1,030,960 cwt.; in 1843, to 1,174,945 cwt.; and in 1844, to 1,081,206 cwt. Almost all this tallow was imported from other than British possessions in Asia, Africa, or America, it appearing that our colonies provide us with an exceedingly small quantity of tallow, in comparison with foreign countries. The rate of duty on the foreign tallow is now 8s. 3 9-10d. per cwt., and on British colonial tallow, 1s. 0 2-5d. per cwt. The average prices of foreign tallow, so far as they have been ascertained, were, in October, 1844, £1 17s.; and in 1840, £2 6s. per cwt., exclusive of duty, whilst the colonial tallow bore a price at the former period of £2 per cwt. against £2 4s. in 1840. The total quantity of blubber, and train and spermaceti oils entered for home consumption, amounted respectively, in each of the above years, 1836 to 1844, to 16,114, 18,722, 20,878, 26,806, 21,438, 19,955, 21,950, 16,395, 22,994, and 20,669 tons, nearly the entire quantity having been the produce of British fishing. The quantities of British colonial cocoa-nut oil entered since the 9th July, 1842, amounted in 1842 to 17,442 cwt., in 1843, to 27,544 cwt.; and in 1844, to 39,096 cwt., whilst the quantities otherwise imported amounted to 8,783, 2,381, and 3,384 cwt. respectively. The quantities of palm oil amounted, in 1842, to 353,672 cwt.; in 1843, to 377,765 cwt.; and in 1844, to 363,335 cwt. The average prices in October last were, of blubber and train oil of British fishing, £31 18s. per ton; of spermaceti oil of British fishing, £88 per ton; of cocoa-nut oil, £1 8s. 4d. per cwt.; and of palm oil, £1 5s. 8d. per cwt.

**264.**—Several of the brokers connected with the provincial share-markets have issued their annual circulars, and these disclose some useful statistics, showing the progress of the majority of lines in full operation. The circular published by Mr. Greaves, of Liverpool, states that the total increase in the traffic of 22 railways for the six months just ended, compared with the corresponding period of last year, has not been less than £321,402, the only decrease being that of £169 on the Glasgow and Greenock line. The particulars of increase are as follows:—Birmingham and Gloucester, £119,991; Chester and Birkenhead, £2,451;—Edinburgh and Glasgow, £2,752; Glasgow, Paisley, and Ayr, £6,631; Grand Junction, £14,844; Great North of England, £10,752; Great Western, £61,580; Liverpool and Manchester, £19,726; London and Birmingham, £18,413; London and Brighton, £16,912; London and Croydon, £5,126; London and South-Western, £6,699; Manchester and Birmingham, £10,887; Manchester, Bolton, and Bury, £4,083; Manchester and Leeds, £36,099; Midland Company, £38,877; Newcastle and Carlisle, £8,236; North Union, £16,489; Preston and Wyre, £2,964; Sheffield and Manchester, £5,034; Ulster, £1,283; and York and North Midland, £10,523. Mr. Hall, of Liverpool, in his circular, takes a comparison of 30 of the oldest and most important railways, and his statement gives an increase of value of stock during the last year of £28,695,479 over the amount of capital laid out, the former being £85,554,081, and the latter £56,858,602. It appears also from the same document, that the only railways which have fallen in price are the London and Birmingham, and the Glasgow, Paisley, and Greenock. The Birmingham and Gloucester; Glasgow, Paisley, Kilmarnock, and Ayr; Great North of England; Newcastle and Darlington; Sheffield and Manchester; and York and North Midland, have risen above 50 per cent. in their value during the same period. The highest prices of Birmingham shares were those current in the month of January, when quotations ranged from 237 to 243; and the lowest those current in the month of October last, when the differences between the Birmingham and Grand Junction Companies seemed likely to produce strong opposition on certain branch lines brought before the public. In that month they fluctuated between 216 and 212.—TIMES, 21st JANUARY, 1845.

**265.**—The Grand Junction Canal Company paid nearly £1000 for ice breaking, in January and February, 1841.

## 266.—THE PRICES OF RAILWAY SHARES.

From the share table recently issued by Mr. Watson, of Glasgow, some curious particulars of fluctuations in the price of shares may be gathered. Thus, on the 8th of January, 1838, the shares of the Great Western Railway were at 12 premium; at the corresponding period of 1839 they were at 13 premium; in 1840 they had sunk to 1 premium; in 1841 they again rose to 81 premium; in 1842 they were 22½; 1843, 26½; 1844, 32; and this year, on the same day, they had advanced to 87 premium. They are now much higher. The Liverpool and Manchester have shown the following fluctuations as to premium:—1838, 97; 1839, 104; 1840, 85; 1841, 86; 1842, 96; 1843, 91; 1844, 130; and 1845, 117. London and Birmingham fluctuated from the lowest point of 61 premium (in 1840) to the highest (in 1844) of 137. The most remarkable case is the York and North Midland, the shares of which in 1838 were at 23 discount, and rose by almost regular steps to 56 premium (on a £50 share) in 1845. The South-Western have in the same period risen from 12 discount to about 47 premium on £39 shares. The Great North of England were in 1838 marked "no price;" in 1840 they were at 25 discount; in 1843 at 41 discount; whereas in 1845 they were at 47 premium on £100 paid. The Manchester and Leeds shares, on the 8th of January of the same seven years, have stood thus:—1 premium; 20½ premium; 10 premium; 12 premium; par; 2 premium; 31 premium; 55 premium. The largest advance during 1844 was in the Great North of England, £61; and the greatest decrease in Liverpool and Manchester, and York and North Midland, of £14.—RAILWAY RECORD.—TIMES, Jan. 27, 1845.

**267.—RAILWAY PROPERTY.**—It now appears that the traffic of the last six months of 1844, on the 38 principal railways in Great Britain, amounts to three millions and a quarter or more—exactly £3,264,450. This traffic has been carried on upon 1522 miles of railway, and 234 miles of branch lines, making in all 1756 miles. This revenue is £450,000 more than the corresponding half of last year. It is chiefly owing to the improvement in the trade of the country, and only slightly to the increase in the extent of lines opened to the public. It represents an improvement of nearly 10 millions in the value of the railways of Great Britain since the commencement of 1844. This revenue amounts to about £4,000 per mile per annum, of which let us take £1,600 for working expenses, and we have £2,400 per mile per annum for dividend, indicating a market value of £48,000 per mile, at 20 years' purchase. The total sum available this half-year for interest and dividends will be about £2,000,000, giving, for the value of all the important lines of the country, at 20 years' purchase, a sum of £80,000,000. But, as many of the lines are worth more than 20 years' purchase, and as many small lines are not included in this estimate, while some are in course of construction and not open for traffic, it may be near the truth to say that at the commencement of 1845 we start with a national property in railways worth not less than £100,000,000.—RAILWAY CHRONICLE.—TIMES, 20th JANUARY, 1845.

**268.**—In a petition from the proprietors of the Staffordshire and Worcestershire Canal Navigation, presented to the House of Commons on the 28th February, 1845, it is stated, relative to railways, that it can be proved that heavy goods and minerals are carried for 1d. to 2d. per ton per mile, while 3rd class passengers are charged 1s. per ton per mile, 2nd class passengers 2s. per ton per mile, and 1st class passengers 3s. per ton per mile, supposing that twelve passengers average one ton; thus showing that 3rd class passengers are charged 12 times, 2nd class 24 times, and 1st class 36 times as much per ton as goods.

**269.**—The years of high prices in the iron trade were 1817, 1818, 1826, and 1836, in which the prices of pig iron were, upon an average, £9, £13, and £7 10s. respectively. 856,000 tons of pig iron were produced in England and Wales in 1844, and 354,000 tons of iron in Scotland in the same year.

**270.**—Merchandise passing between London and Birmingham, in 1832, was about 27,300 tons up, at 50s. per ton; and 14,560 tons down, at 42s. 6d. per ton.

**271.—In 1843, the Grand Junction Railway** Company paid to the Liverpool and Manchester Company 3s. 6d. per ton for terminal expenses at Liverpool, and for running free 16 miles, on their line, to Newton junction. The same Company paid 10s. per ton to Messrs. Chaplin and Horne, for terminal expenses in London.

**272.—In 1835, about the following weight of merchandise passed yearly between the undermentioned places:—**

	Tons.
Bath and Bristol, by vans and waggons	... 57,518
Reading and Bath,	... 14,703
London, Gloucester, and Cheltenham	... 7,488
London and Falmouth,	... 2,496
"    Taunton	... 2,184
Reading and London	... 37,752
Maldenhead and London,	... 5,733
Bath and Bristol, by river	... 79,740
Reading and London	... 109,280

and about 3000 tons of cheese were sent from Gloucester to London, and 2000 tons from North Wilts.

**273.—RHENISH STEAM BOATS.—The** *Moniteur des Chemins de Fer* gives the following account of Rhenish steam navigation in 1840. The navigation between Basil and Strasburgh only commenced in June last year, and between that time and October, 1840, about 10,000 persons were conveyed. Fifteen steam boats of the Cologne Company, carried, between Cologne and Strasburgh, 460,946 passengers, 2196 carriages, 440 horses, and 848 dogs, and 14,800 tons of goods; being an increase on 1839, of 137,043 passengers, or 40 per cent. and 2800 tons. The six boats of the Dusseldorf Company, between Dusseldorf and Ments, carried 152,347 passengers, 557 carriages, 331 horses, 250 dogs, and 10,000 tons of goods; being an increase, on 1839, of 37,381 passengers, or 36 per cent. and 1,200 tons. The Netherlands Company carried about 20,000 tons of goods; the number of passengers is unknown. The quantity of traffic, by lighters, is in no ways diminished, but has rather increased, although the rate of freight has been reduced.—*Railway Magazine*, July 16th, 1842.

**274.—STEAM BOATS ON CANALS.—The** steam boat experiment mentioned in last year's report, did not succeed to such an extent as to warrant your Committee in pursuing further the object of the Patentees, who, however, are still sanguine of its success; and your Committee are enabled to state that several Canal Companies are now uniting to offer a considerable premium for the successful accomplishment of a steam boat for canal navigation.—*Lancaster Canal Report*, 1st February, 1842.

**275.—TROOPS BY RAILWAY.—A** new regulation has been issued, under authority from the Horse Guards, relative to the conveyance of her Majesty's forces by railway, in virtue of the act 7 and 8 Vic., c. 85, clause 12, by which it was enacted that all railway companies are bound to provide conveyance as hereinafter mentioned:—"Officers to be conveyed at fares not exceeding twopence per mile, in first-class carriages, each officer to be allowed 1 cwt. of baggage free of charge; soldiers, their wives, and children above twelve years, to be conveyed at fares not exceeding one penny per mile; children above three, and under twelve, half price; those under three years of age are to be carried free; regimental baggage twopence per ton per mile; detached soldiers and their families to be allowed 56lbs. of baggage each; carriages to be provided with seats, and persons protected against the weather; soldiers, or their families, who cannot produce a route, or other satisfactory authority, to proceed by this conveyance, to be considered as ordinary passengers, and not entitled to the benefit of this agreement. In order to avoid the risk of advancing money to persons not trustworthy, directors to accept in lieu of immediate payment of fares, passage warrants or tickets, signed by proper officers, ordering the conveyance; such warrants to be provided at the expense of the public, and payable monthly. And whenever necessary to move officers, soldiers, &c., or their baggage or stores, the company to provide the requisite accommodation at the usual hours of their trains starting."—*Midland Counties Herald*, March 12th, 1845.

**276.—BIRMINGHAM AND GLOUCESTER RAILWAY.—On** Saturday week a fire broke out in the eight o'clock train among the goods. The engine driver dashed on at a more rapid pace towards Eckington, to the great terror of the passengers in the carriages behind. £600 worth of goods were destroyed.—*Railway Magazine*, July 16th, 1842.

**277.—It** has been ascertained from the custom-house returns, and other sources, that upwards of 200,000 tons of coal and timber alone, passed up and down the Clyde in 1841; and that about 100,000 tons of coal are consumed annually at Port-Glasgow and Greenock.

**278.—THE RAILROADS AND CHRISTMAS PRESENTS.—At** the terminus of the railway at Euston Square, 15,000 parcels arrived from various stations between London and Liverpool, directed to residents in London.—*Railway Magazine*, January 8th, 1842.

**279.—The** fast train on the Great Western railway, which commenced running on Monday, March 10th, 1845, completed the journey from London to Exeter, a distance of 194 miles, in four hours and fifty-three minutes. The journey to Bristol was accomplished in less than three hours, including a stoppage of ten minutes at Swindon. The travelling speed was fifty miles an hour.

**280.—OLDHAM BRANCH RAILWAY.—**The traffic betwixt Oldham and Manchester has to pass over inclines of 1 in 59, 1 in 48, and 1 in 27, for two miles, which was worked by a rope and descending train in March, 1845, the whole distance being seven miles, and the gradient for the remaining five miles, 1 in 150. Ten trains are run each way daily, carrying, on the average, 1200 passengers, and 300 tons of goods, at an average speed of 22 miles per hour.

**281.—FRAUD ON THE MANCHESTER AND LEEDS RAILWAY COMPANY.—Yesterday,** at the New Bailey, a man named Thomas Howarth, a common carrier in this town, was summoned before the magistrate to answer the complaint of Mr. Wood, the goods agent of the Manchester and Leeds Railway Company, at the Oldham-road Station, charged with having, on Saturday last, given a false account of some goods that were to be carried by the trains from Manchester to Todmorden, with intent to evade the payment of the proper rates. It appeared that on the day in question, the defendant had sent four lots of goods, weighing 3 tons 16 cwt., and had described one lot as "cotton," and all the rest as "goods;" but it was discovered that others of them were cotton as well as the one so described, and by this means, a "differential" rate being charged by the company, he had defrauded them to the amount of 9s. 5d.—He admitted the charge, and was fined 50s. and costs.—*Manchester Courier*, March 8th, 1845.

**282.—FRAUD ON THE MANCHESTER AND LEEDS RAILWAY.—We** last week noticed a case in which a person had been fined for defrauding the Manchester and Leeds Railway Company, by giving a false description of goods sent by the line. On Thursday, a precisely similar charge was preferred at the New Bailey, by Mr. Wood, the goods agent of the company, against John Heathcote, a person in the employ of Messrs. M'Kay, Thompson, and Co., carriers, who had been detected in the practice of sending goods of a higher quality than he described them to be. Mr. Harding, solicitor, supported the charge; and Mr. Law, solicitor, appeared for the defendant. The case was clearly established against him, and he was fined 80s. and costs; in default of payment, he was committed for a month.—*Manchester Courier*, March 15th, 1845.

**283.—The** following are the particulars of the merchandise traffic on the Manchester and Leeds railway, for six months ending

	1842.	1843.	1844.
Tons conveyed	129,730	187,553	253,241
Mileage	4,303,635	5,601,754	7,672,976
Receipts from goods, live stock, and carriages.	£52,434	£63,967	£81,121

**284.—LARD.**—During the half-year ended the 5th of January, 1843, the total quantities of lard imported amounted to 10,664 cwt., 780 cwt. being of and from British possessions, and 9,884 cwt. of and from foreign countries. During the year ended the 5th of January, 1844, the total quantities imported amounted to 76,608 cwt., of which all but 346 cwt. came from foreign countries. During the year ended the 5th of January, 1845, the total importations amounted to 69,428 cwt., of which only 133 came from British possessions. By far the greatest quantity of lard, indeed almost all, is imported from the United States of America. The quantities of lard entered for home consumption in the United Kingdom, amounted in 1842, (one half-year) to 26,165 cwt., paying a duty of £2654; in 1843-4, to 60,998 cwt., paying a duty of £6389; and in 1844-5, to 81,518 cwt., paying a duty of £8556.

**285.—Mr. Poole, who, in 1844, wrote strongly against "carriers" being admitted on railways, states:—"A nobleman had some furniture, &c., taken from London to Stafford, by a carrier, who charged £20. 8s. 2d. for carriage thereof. The nobleman complained that the charge was excessive, and after an expostulation, the carrier reduced the amount to £14 18s. 7d.**

**"A merchant had goods conveyed from London to Liverpool by this same carrier, who charged £8 9s. 8d.; but, upon a strong remonstrance being made, the carrier reduced his demand from the above amount to £6 18s. 1d.**

**"A military officer had two casks of wine sent from Liverpool to Birmingham, and thence to the barracks at Weedon. This identical carrier conveyed the wine from Birmingham to Weedon, a distance of only forty-three miles, and charged the sum of £1 6s. 5d., (out of which he would pay the railway company about 6s. only), whereas the Grand Junction Railway Carrying Company, who conveyed it from Liverpool to Birmingham, a distance of ninety-eight miles, charged only 12s.**

**"A poor widow, and her family of young children, had their furniture removed from London to Liverpool by this same carrier, who charged her 7s. per cwt. for it, as being "goods out of trade," and for which they openly profess to charge excessive rates. The poor widow had no means to litigate the affair, so she was compelled to pay it.**

**"I have an instance now before me, wherein a Carrying Firm paid to the Liverpool and Manchester Railway Company, for the carriage of three cases of merchandise, as if weighing 12 cwt. 2 qrs. 17lbs., the actual gross weight of the goods being 12 cwt. 3 qrs. 2lbs.; but the weight upon which the Carrying Firm charged freight to the consignee was 17 cwt. 0 qrs. 4lbs.**

**"Mr. A. Taylor sent ten bales of cotton to the Liverpool and Manchester Railway, intended to be conveyed by that company, but which were intercepted by an employee of Messrs. Barnby, Faulkner, and Co., "Railway and Canal Carriers," and were not delivered to the consignees until ten days afterward, whereby considerable loss was sustained, by the owner's mill having been kept standing, for want of this particular lot and description of cotton."**

**286. The Manchester and Leeds Railway Company had in their warehouse at Manchester, in April, 1845, upwards of 100,000 sacks of flour and grain; they deliver from 2000 to 3000 sacks each day, and have nine luggage trains out, and seven trains in daily. They pay for unloading the sacks and putting them into the warehouse, 2½d. per ton; and if stowed two sacks high, 5d. per ton.**

**287.—QUICK TRAVELLING.**—On Saturday, May 8th, 1845, a new engine, manufactured by Messrs. Sharp, Brothers and Co., was delivered to the Manchester and Birmingham Railway Company, and on Monday, the 5th, it conveyed the express train from Manchester to Crewe, thirty-one miles, in thirty-nine minutes, including a stoppage of four minutes at Chelford, and returned from Crewe to Manchester in forty minutes, including a similar stoppage. The engine was driven by the superintendent of the Manchester and Birmingham Company's locomotive department; and there is every reason to believe that the distance can be safely run in thirty minutes, exclusive of stoppages. A similar engine is to be delivered to the same company on the 8th inst, and it is of much importance to the company, that these new engines consume much less coke per mile.

**288.—RATE OF TRAVELLING AT DIFFERENT PERIODS.**—In Alkin's History of Manchester, (1795) it is stated, "when the Manchester trade began to extend, the chapmen used to keep gangs of pack horses, and accompany them to the principal towns with goods in packs, which they opened and sold to shopkeepers, lodging what was unsold in small stores at the inns. The pack horses brought back sheep's wool, which was bought on the journey, and sold to the makers of worsted yarn at Manchester, or to the clothiers of Rochdale, Saddleworth, and the west riding of Yorkshire. On the improvement of turnpike roads, waggons were set up, and the pack horses were discontinued; and the chapmen only rode out for orders, carrying with them patterns in their bags. It was during the forty years from 1780 to 1770, that trade was greatly pushed, by the practice of sending these riders all over the kingdom, to those towns which before had been supplied from the wholesale dealers, in the capital places before mentioned.

**"In a manufacturer's private expense book, in 1701, is paid £26 18s. 9d. for a journey to Scarborough; and hire of a coach, £18 6s. 2d."**

**"In 1700, a manufacturer taking his family up to London, hired a coach the whole way, which, in the state of the roads, must probably have made it a journey of eight or ten days; and in 1742, the system of travelling had so little improved, that a lady, wanting to come with her niece from Worcester to Manchester, wrote to a friend in the latter place to send for her a hired coach, because the man knew the road having brought from thence a family some time before, and also because he travelled on cheaper terms than the Worcester hired coaches."**

**And in Baines's History of Lancashire, that—"In 1721, it appears, from the post office regulations, that, at this time, the posts, both to London and the north, departed from Manchester, and returned to this place, only three times a week. Eight days were then required to effect the interchange of a post letter from London, which is now [1836] completed in sixty hours.**

**"In 1754, a "flying coach" was advertised as about to commence running between Manchester and London, in the following terms, and the greatness of the marvel may be inferred from the positive and assuring tone of the announcement—"However incredible it may appear, this coach will actually (barring accidents) arrive in London in four days and a half after leaving Manchester!"**

**"It is stated by Aston, in his "Picture of Manchester," that the news of the battle of Waterloo was brought from London to Manchester, by the Traveller, the Defiance, and the Telegraph coaches, in eighteen hours!"**

**289.—A gentleman left Manchester by the express train, on Saturday, the 3rd of May, 1845, and gives the following account of the time occupied between Manchester and London:—"We started from Manchester at 33 minutes past four o'clock, by my watch. Our first stoppage was at Chelford, [17 miles] at two minutes to five, [81 minutes] for two or three minutes. Then to Crewe, 25 minutes past five, [14 miles in 24 or 25 minutes.] We arrived at Stafford at six o'clock, [24½ miles in 35 minutes.] ten minutes before our time, which we had to wait; and then started at a tremendous pace to Birmingham, where we arrived at seven minutes to seven, [20½ miles in 43 minutes.] Part of the way between Wolverhampton and Birmingham, we came about sixty miles an hour. We stayed there [Birmingham] till 16 minutes past seven, and stopped at Coventry at 16 minutes to eight. [16½ miles in 28 minutes.] Kilsby Tunnel, seven minutes past eight; Weedon, 21 minutes past eight, [24 miles from Coventry, in 37 minutes.] Biliworth, 25 minutes to nine, [seven miles; 14 minutes;] and got to Wolverton at a quarter to nine, [10½ miles; 10 minutes;] thence to Tring, 21 minutes past nine, [20½ miles; 36 minutes;] and finally reached Euston Square at 12 minutes past ten o'clock. [32 miles; 51 minutes.] The regular speed from Birmingham was 45 to 47 miles an hour; on the Grand Junction about 50 generally. I did not feel any difference."—MANCHESTER GUARDIAN, MAY 7TH, 1845.**

**290.—Between Wolverhampton and Stourbridge there are at present (March 1845) about 100 blast furnaces in work, producing about 468,000 tons of pig iron annually.**

**291.—The complaints of Messrs. Pickford & Co., against the Grand Junction Railway Company, are stated as follows in a letter from the Board of Trade to the Grand Junction Company, dated March 4th, 1841:—**

"1. In undertaking by themselves and their agents, a branch of business not authorized by their Acts, which only empower them to carry over their own and other railways, viz: the collection and distribution of goods at the termini of Manchester, Liverpool, Birmingham, and Camden Town.

"2. In refusing to carry goods for Pickford and Co. from terminus to terminus, unless they pay the same rate as is charged to other parties, including cartage and distribution, and thereby charging unequal rates to different parties.

"3. In refusing to Pickford and Co. the accommodation enjoyed by themselves as carriers, of permitting London and Birmingham trucks, loaded in London, to go on to their line at Birmingham, and proceed to Liverpool or Manchester, without unloading.

"4. In refusing to allow Grand Junction trucks, loaded with Pickford and Co.'s goods, to go on to London, unless paid by Pickford and Co., for their use, although under their agreement with the London and Birmingham Company, they receive a consideration for the hire of all trucks which go upon the line of that Company, and although they give the advantage of the use of their trucks to London to themselves, or their agents, acting as competing carriers.

"The above appear to their Lordships the principal points upon which the memorial of Messrs. Pickford and Co. makes out a *prima facie* case against the Grand Junction Company for explanation."

An action commenced in 1840, and the points at issue were argued at considerable length in the Court of Exchequer, on the 2nd July, 1842; and on the 7th July, 1842, Mr. Baron PARKE gave judgment in this case as follows:—The two main questions raised in this case are first, whether the defendants were bound to carry a hamper containing several parcels, each less than 112 lbs. directed to and intended for different persons, for the sum offered to them by the plaintiffs; and secondly, whether they were bound to carry a parcel from Manchester to Camden Town for the sum offered to them by the plaintiffs. There were two hampers, each containing several small parcels, tendered at different times to the defendants, but the same question arises out of both. The sum tendered in respect of each is found to be the full amount the defendants were entitled to receive for the receipt and carriage of the hamper and its contents, and for all other charges, unless the defendants were entitled to charge for each parcel contained in the hamper separately, or to charge 1d. per lb. on the gross weight of the hamper and its contents. We are to determine, therefore, whether the defendants are entitled to make either charge—a mixed question of law and fact—the fact being submitted to us, by the consent of the parties, as to a jury. Under the Act of Parliament establishing the Grand Junction Railway Company, 3rd Geo. IV., cap. 34, the Company is authorised, by sec. 156, to carry on that railway all such goods, &c., as shall be offered to them, and to make such reasonable charges for such carriage and conveyance as they may from time to time determine upon. In addition to the toll and toll, without any other restriction, in the case of goods, than that the charge should be reasonable. By 4th William IV., cap. 53, sec. 19, these powers are extended to the carriage of all goods that should be offered on other railways, but they are still to make reasonable charges for such carriage. By virtue of this clause, the Company in their character of common carriers are bound to carry for reasonable charges, if reasonable charges are tendered. The true question, therefore, is resolved into this: whether for the hamper containing small parcels, it is reasonable to charge either for each parcel contained in the hamper separately, small parcels consigned to different persons, or one penny per lb. on the gross weight of each hamper and its contents. The charge is no doubt to be varied according to the trouble, expense, and responsibility attending the receipt, carriage, and delivery of the different articles, and for small articles more ought to be paid than a proportionate part, according to the weight and price of larger parcels of the same commodity, by reason of the great trouble in receiving, despatching, and delivering, as they

are exposed to a much greater risk of abstraction or loss. But if all the small parcels are united in one package, and delivered for carriage in that package, consigned to one person, the trouble and responsibility are apparently reduced precisely to the same degree as if all the articles contained in the package were the property of the same owner, and intended to be delivered to him. There would seem, therefore, to be no right to charge for such package of distinct parcels belonging to different owners, more than if they belonged to the same; but then, it is urged on the part of the defendants, that there really is an increased responsibility, arising from the simple fact that each parcel is the property of a distinct owner, because it is said that in the event of a misdelivery, the Company would be liable to several actions of trover, instead of one; and even in case of loss, or damage, by neglect, each separate owner might maintain an action, on the custom of England, with respect to his own goods. It is very doubtful at least, whether on the custom of England, separate actions could be maintained, as the relation of employer and carrier, would not have subsisted between them and the Company, but between them and the plaintiffs. As the action of trover, however, could be maintained, it would not be unreasonable to allow some additional remuneration, on account, not of the liability to pay greater damages, for they would be the same in both cases, but to pay the same damage by means of different suits. We are relieved, however, from the necessity of deciding what the precise amount of additional compensation should be (which at all events should be trifling, because it is admitted in the special case the sum tendered is proper, unless the defendants had a right to charge for separate parcels, which they certainly had not; because neither the trouble, expense, nor responsibility, is the same as if the parcels had been separate, or unless the defendants had a right to charge one penny per lb. We have no difficulty in saying, that the last-mentioned remuneration is excessive, and unjustified by the increase of responsibility, from the circumstance of the properties being separate. It is impossible to support, on this ground, the charge of £4. 1s. 8d. for the first package, of which, if it had consisted of parcels, one property, £1 6s. 6d. would have been the proper charge, and a charge of £3 1s. 6d., instead of 9s. for the second. We are of opinion that the plaintiffs are entitled to our judgment on the first question raised between them, which is the subject of the two first counts. On the second question the court have already intimated their opinion, that this Company cannot support a claim for the same sum for carriage to Camden Town, and for a carriage thither and delivery at any place in London. By the provision already referred to, they are to carry for reasonable charges for carriage; and by the 3rd Victoria, cap. 49, sec. 26, such charges are to be made equally; and it is clearly unreasonable and unequal to charge the same sum to a consignee who is willing to receive the goods at Camden Town, and one who requests them to be delivered at the London Docks, or elsewhere in London. The plaintiffs are bound to pay the balance of 60s. per ton, after deducting a reasonable charge for delivering in London, and no more; and the defendants must carry to, and deliver at, Camden Town, for that sum. The plaintiffs are therefore entitled to succeed on the second issue raised by the special case, and the verdict on all the issues is to be entered for the plaintiffs.

**292.—On the 2nd of March, 1841, a passenger engine conveyed from Wootton Bassett to Paddington, 256 tons, exclusive of engine and tender, and on the 12th of March, another engine took down 216 tons gross.**

**293.—The salt works of Cheshire, Warringtonshire, and Lancashire, are capable of making upwards of a million of tons of salt annually, although the demand was only about 500,000 in 1841.**

**294.—The Manchester and Leeds Railway Company brought down charges to the public as follows:—**

	Per ton between Manchester and Hull, 99 miles.	
	Before the Railway opened in 1840	4th Feb., 1845.
	£. s. d.	£. s. d.
Corn, flour &c.....	1 4 0	0 18 0
Cotton twist .....	1 12 6	1 0 0
Manufactured goods .....	2 5 0	1 4 0

**295.—RAILWAY TAXATION.**—The late reports of the following railways give the following statistics for the last half-year:—Grand Junction (104 miles; capital expended, £2,600,000.) half-year's traffic receipts, £229,000.; for dividend, £130,000.; paid poor-rates, tithes, church, &c., £3,890.; Government tax of five per cent. on passengers, £7,000.; besides income tax on dividend, &c. Birmingham Railway (112 miles), capital expended, £6,000,000.; on branches, £500,000.; half-year's receipts, £450,000.; working expenses, £182,000.; disposable balance, £273,000.; rates and taxes, £12,247.; Government passenger tax, £15,784. Greenwich, (3½ miles; capital, £1,000,000.) receipts, (1,000,000 passengers,) £27,600.; expended, £27,400.; balance for shareholders, £270.; paid Government tax, £1,071.; rates and taxes, £4,682.; income tax, £121. Thus it will be seen that four railways of 440 miles length (or 4400 acres of land) paid, in the half-year, £80,148. rates and taxes, (or six per cent.) and £89,200. passenger tax, (or six per cent. further; besides stamps, income tax, &c., on their disposable balance of £563,000. The total amount of this taxation presses very heavily, when it is computed that there are now 2,000 miles of English railways with a capital of £100,000,000.; and that on thirty-eight of these railways, (extending 1,756 miles,) for the last six months of 1844, the traffic receipts were £3,250,000 being about £4,000. per mile per annum; from which deduct £1,600. for working expenses, and there is left £2,400. per mile per annum, or nearly £2,000,000. for dividend.—**RAILWAY AND LAND TAXATION, March 1845.**

**296.—The quantities of tea retained for home consumption in the United Kingdom** amounted, in 1740, to 1,493,625lb., and in 1844 (a century afterwards), to no less than 41,363,770lb. In the period between 1740 and 1766, the consumption varied from 473,868lb. to 5,307,292lb. annually; between 1767 and 1783, from 8,776,229lb. to 7,328,098lb. annually; between 1784 and 1794, from 10,159,701lb., to 18,665,365lb. annually; between 1795 and 1805, from 18,868,427; to 25,400,294lb. annually; between 1806 and 1818, from 21,065,843lb. to 26,527,581lb. annually; between 1819 and 1833, from 25,241,693lb. to 81,829,620lb. annually; and between 1834 and 1844, from 30,625,266lb. to 49,142,236lb. annually. The largest import occurred in the year 1836, when 49,142,236lb. were entered for home consumption. The exertions of Father Matthew and his abstemious associates appear to have influenced, in some degree, the home consumption of late years, inasmuch as the entries have jumped, between 1840 and 1844, from 32,252,623lb. to 41,363,770lb. a-year, a difference of 9,111,147lb. The net receipts of the duty on tea (Customs and Excise) between the years 1740 and 1766 are not ascertainable from any existing records. In 1767, the net annual receipt amounted to the sum of £579,681; in 1794, to £671,974; in 1797, to £1,088,878; in 1803, to £1,929,614; in 1804, to £2,599,789; in 1805, to £3,336,524; in 1815, to 4,058,092; in 1825, to £4,031,019; in 1833, to £3,444,102; in 1834, to £3,589,361; in 1835, to £3,882,427; in 1836, to £4,674,534, (the highest ever received); in 1837, to £3,223,840; in 1838, to £3,382,035; in 1839, to £3,658,503; in 1840, to £3,472,984; in 1841, to £3,973,668; in 1842, to £4,088,957; in 1843, to £4,407,642; and in 1844, to £4,524,193. In the year 1837, (the last mentioned in these returns,) the qualities of tea sold by the East India Company, were as follows, viz: of Bohea, 1,634,457lb. at an average sale price of 1s. 0.8d. per lb; of Congou, 9,903,534lb., at an average sale price of 1s. 8.8d. per lb; of Campoi, nil.; of Souchong, 150,696lb., at an average sale price of 1s. 11.7d. per lb.; of Pekoe, nil.; of Twankay, 508,355lb., at an average sale price of 1s. 3.5d. per lb; of Hyson skin and young Hyson, nil.; of Hyson, 356,608lb., at 2s. 4.4d. per lb; of gunpowder, nil; Total, 12,353,640lb. The total sales in 1740, amounted only to 1,653,081lb.

**297.—The total quantity of foreign iron** (in bars or unwrought) imported into the United Kingdom in 1841, was 23,761 tons. The total quantity of British bar iron (including unwrought steel) exported from the United Kingdom in 1841 was 170,177 tons.

**298.—In 1832, Mr. F. Barnes complained** before a Committee in the House of Lords, that the Grand Junction Canal Company's servants broke holes in his packages to ascertain the contents.

**299.—Mr. Morrison stated in the House of Commons, March 29th, 1845,** "That previous to the introduction of railways, the consumption of fish at Manchester was comparatively small; but Captain Lawes had induced the railway proprietors to reduce the charge of transit, and got the fishermen on the coast to sell all the fish they could take at one regular price, whether the catch was great or small, and the result was, that the best cod fish was reduced from 8d., or 1s. per pound, to 1d., or 2d., placing it within the reach of artisans, and the demand had so risen as to keep ahead of the supply. The former consumption of 3½ tons per week had, within the last year, given place to one of 80 tons; and the undertaking answered extremely well to all parties concerned. The improvement also, in the cost of constructing a line was most remarkable. The old railways cost £50,000, or £60,000 a mile; the proposed new lines were commonly to be at £10,000 or £12,000 a mile, and some at less; in a few years, £10,000 would, doubtless, be considered an extravagant expense. And the whole expense of driving an entire train, was found to be not more than the expense of posting with a pair of horses used to be, namely, 2s. a mile, and in some cases it was considerably less. The expense of the locomotive power in the carriage of goods, was only about three eighths of a penny per ton per mile; it could be done at a profit on all goods, at a halfpenny a ton. He (Mr. Morrison) would not dwell upon the Belgian line, because it would be said that that was a government undertaking, though he thought that no answer at all; the average fares upon it were about 1d., 3d., and 4d. per mile, but it could be worked much cheaper than at present. The Orleans line was the model which the French intended to adopt in all their proposed railways. The tariff was about 1½d., 1d., and ¾d. for the three classes; 10, 7½, and 5 centimes per kilometre. Ours was very generally 3d., 2d., and 1d. Now, surely, under our circumstances 2d., 1½d., and 1d. would be quite an ample remuneration for most of the new lines; and he himself believed, that 1½d. 1d. and ¾d., would be the common charge by and by. He concluded with moving,—"1. That it is the duty of Parliament, in giving its sanction to the establishment of new railways, to render them the means of affording to the public, the best and safest communication, and the greatest possible amount of accommodation, at the lowest possible rates. 2. That the clauses heretofore introduced into railway bills to limit the amount of tolls to be demanded for the use of the railway, having proved practically inoperative, it is expedient to make a more effectual provision against the undue enhancement of the cost of travelling and transportation in every future railway bill, by fixing the highest rates which the railway company shall be allowed to charge for the conveyance of passengers and goods. 3. That for this purpose every committee on a railway bill, introduced in the present or any future session of Parliament, shall report a table of fees and charges, the lowest which they shall judge to be consistent, under the circumstances of each case, with a fair and reasonable return for the capital to be invested. 4. And that every committee to which two or more competing projects for new railways may be referred, shall require the promoters of each to put in statements as to the rates of charge for the conveyance of passengers and goods to which they are content to be limited, and the amount of accommodation which they will bind themselves to provide for the public at those rates; and that, in determining on the comparative merits of competing schemes, regard shall be had to the extent and nature of the advantages which can be thus reserved to the public from each." Mr. Morrison afterwards withdrew his motion.

**300.—In 1832, eight waggons per week** went and returned between Birmingham and London, conveying about 2288 tons, at about 3s. per cwt. down, and 5s. up; and three waggons between Northampton and Birmingham, conveying about 3012 tons, at about 2s. per cwt.; also about 5000 tons up, at 3s., and 3000 tons down, at 2s., between London and Dainty.

**301.—CATTLE TRAFFIC.**—The number of Cattle conveyed on the Main Line of the Great North of England Railway in the year 1844 was 16,238 head, which is equal to 360 per mile per annum. The number of Sheep, Calves, and Pigs conveyed on the same line in the same year was 24,150, which is equal to 534 per mile per annum.

**302.—Parliament sanctioned, in 1845, the construction of 2,090 miles of new railways in England and Scotland, and of 560 miles in Ireland.** This is, in effect, to double the extent of the railways of Great Britain, exclusive of Ireland. The capital authorized to be raised in shares for this purpose, amounts to £31,680,000, exclusive of £6,800,000 required for the Irish lines, making in all, £38,480,000, to be applied in England, within the next two or three years, for our own railways. The cost of the new railways per mile, will be thus very much less than that of existing lines. The average of the new is nearly £15,000 per mile, and that of the old exceeds £30,000 per mile. It will thus be seen that the amount to be provided for the new railways is not so enormous as has been supposed from the number of bills before Parliament. At the same time it is sufficiently large to require serious consideration, and to arrest the progress of reckless speculation. £10,000,000 a year for the next three years, can be easily spared by a nation whose annual savings are calculated to exceed £50,000,000. By an investment of these £30,000,000 profitably, the country will be enriched, and multitudes benefited both at present and permanently. At the same time, the demand for money, when the calls for these works come to be made, will be sufficient to put a check upon all idle and foolish schemes, such as those against which we have warned our readers. The expected revenue from these new lines considerably exceeds £2,000,000 sterling per annum.—*RAILWAY CHRONICLE—TIMES, 11TH AUGUST, 1845.*

**303.—A GIGANTIC ENGINE.**—A locomotive engine, of truly gigantic dimensions, has just been constructed at the Broomsgrove station, on the Bristol and Birmingham Railway, under the direction of Mr. McConnell, the locomotive superintendent of that line, and, like her great contemporary on the ocean, has been appropriately named the "Great Britain." This iron giant has proved its power to be equal to the conveyance of upwards of 1000 tons on the level rails, and has ascended the Lickey incline on the above railway, with a load of 150 tons, thus surmounting a gradient of 1 in 37—a feat of locomotive power hitherto without a parallel. The dimensions of this mammoth engine are as follow, viz: Diameter of the cylinder, 18 inches; length of stroke, 26 inches; six wheels coupled, 46 inches; having a tank over the boiler for the supply of water, and a foot plate sufficiently large to hold boxes containing the coke necessary for a trip up and down the incline. This is by far the largest locomotive engine that has yet been made; it is now in daily use, and is worked with the greatest facility.—*GLOBE—TIMES, AUGUST 28TH, 1845.*

**304.—NEW LOCOMOTIVE AGENCY.**—A letter from Philadelphia, published in the *MEMORIAL DE ROUSE*, has the following:—"William Evans has resolved a problem, which must overturn our present system of railway and steam-boat propulsion. By means of enormous compression, he has succeeded in liquifying atmospheric air, and then a few drops only of some chemical composition, poured into it, suffice to make it resume its original volume with an elastic force quite prodigious. An experiment on a large scale has just been made. A train of 20 loaded wagons was transmitted a distance of 60 miles in less than an hour and a quarter—the whole motive power being the liquid air enclosed in a vessel of two gallons and a half measure, into which fell, drop by drop, and from minute to minute, the chemical composition in question. Already subscriptions are abundant, and a society is in course of formation. The inventor declares, that an ordinary packet boat may make the passage from Philadelphia to Havre in eight days, carrying a ton of his liquid air. A steam engine of six-horse power will produce that quantity in eight hours."—*TIMES, August 28, 1845.*

**305.—In 1832, goods were conveyed between Birmingham and London as follows:**—By coach, in 15 or 16 hours, at 8s. 4d. per cwt.; by wagon, in about four days, 5s. per cwt.; by canal, in five or seven days, 2s. 6d. and 2s. 9d. per cwt.

**306.—The Liverpool and Manchester Railway conveyed during the first six months in 1831, 42,000 tons of goods; and the next half-year, 65,000 tons.**

**307.—RAILWAYS AND CANALS.**—In the appendix to a statement issued in 1845, on behalf of the Grand Canal Company of Ireland, in the matter of the proposed railway to Cashel, there are given some curious details as to the effect of railways on canal property. Thus, the Grand Junction Canal, which forms the first 90 miles of water communication between London and Birmingham, had, in the three years immediately preceding the opening of the railway, an annual revenue from tolls ranging from £174,722 to £198,000, regularly increasing. Since the railway was fully in operation, this revenue has varied from £121,139 to £113,012. The Rochdale Canal is 33 miles long, and throughout the entire distance the Manchester and Leeds Railway runs parallel to it. In the three years previous to the opening of the railway, the tolls ranged from £62,059 to £59,258; in the last three years, they have varied from £31,533, to £27,165. The Kennet and Avon Canal, and the Wilts and Berks Canal, are both affected by the Great Western Railway, and the tolls of the former have fallen, since the railway was opened, from £46,703, to £32,045; and of the latter, from £19,328, to £8,477. The Forth and Clyde Navigation has gone down from £62,516, to £42,218; and the Union Canal, which connects Edinburgh with the Forth and Clyde Canal, has had its net profits reduced, by railways, from £12,000 to £4,284. The market price of canal stock, has, of course, suffered in proportion. Thus, shares in the Grand Junction Canal have fallen from £330 to £148 per share; Warwick and Birmingham, from £330 to £180; Worcester and Birmingham, from £84 to £55; Kennet and Avon, from £25 to £9; and Rochdale, from £150 to £61½; while Coventry Canal Shares, which, at one time, were as high as £1200 per share, have fallen as low as £315.

**308.—WHITSUN-WEEK AT MANCHESTER.**—During this week, in 1845, the Sheffield and Manchester Railway Company booked the following number of passengers:—

Manchester	11,439
Ardwick	11,515
Gorton	2,009
Fairfield	2,588
Ashton	17,837
Dukinfield	3,536
Newton	3,200
Broadbottom	1,218
Glossop	1,645
Hadfield	752
Woodhead	1,610
Sunday Scholars	12,221
Total	69,680

On Whit-Saturday, 17th May, 20,738 passengers were booked, exclusive of Sunday Scholars. The amount of receipts during the week, were

	£.	s.	d.
Passengers	1520	13	1
Parcels		16	8
Goods		66	16
Live stock		13	8
	£1617	6	4

The Manchester and Birmingham Railway Company, during the same week, booked as follows at the Manchester station only, for various places, 24,150; to which add 1036 for London, by cheap trip, and 10,081 for Sunday Scholars and their friends, making a total of 35,257 passengers. The Manchester and Birmingham and Sheffield and Manchester Companies, are both at the same station at Manchester, thus 46,696 passengers actually left one station during the week. The Manchester and Leeds Company, during the same week, booked upwards of 96,000, including what returned to each place.

**309.—MERCHANDISE TRAINS ON THE MANCHESTER AND BIRMINGHAM RAILWAY.**—On the 28th July, 1845, this company conveyed between Manchester and Crewe, 230 waggons, with 577½ tons of goods. The total, during the day, received and sent out of Manchester, was 262 waggons, containing 673½ tons of goods. The weight of goods and waggons was 1328 tons, of which 1231 tons passed up or down the hoist.

**310.—EXTENT OF PARLIAMENTARY PRINTING.**—Returns have just been laid before the House of Commons, which show that the average number of acts of Parliament printed by the Queen's publisher in Ireland, in each year, from 1831 to 1844, amounted to 13,000; and that the total number of sheets filled by those acts amounted to 50,000. There were reprinted about 8,000 acts in folio, containing 23,000 sheets, besides 9,000 acts reprinted in octavo, consisting of as many as 17,000 sheets. The number of acts of Parliament distributed amongst the public in the period ranging between 1831 and 1844, amounted to about 150,000; the number supplied under the promulgation order, amounted to 1,787,068; and the number supplied to the public departments, to 140,044.—TIMES, AUGUST 8TH, 1845.

**311.—PUBLIC SPECULATIONS.**—A list of all the private bills applied for during the present session of Parliament, for which a subscription contract, or undertaking in lieu of a subscription contract, has been deposited in the Private Bill-office, stating the amount of the estimate for each work, of the capital stock to be raised in each case, and the sum authorized to be borrowed over and above such capital stock; and showing the total amount of the estimates, capital, and money to be borrowed for each class of works, gives the following results:—

Description of bills.	Estimate of Expense.	Capital Stock.	Money proposed to be authorized to be borrowed.
1, Railways .....	£92,921,779	£94,812,813	£30,276,883
2, Navigations and Canals .....	176,130	..	76,000
3, Waterworks .....	613,452	732,080	387,466
4, Ferries and Docks .....	1,653,000	1,000,000	1,100,500
5, Piers and Harbours .....	331,050	..	320,000
6, Bridges .....	49,500	22,000	7,333
7, Roads .....	3,558	..	..
	£95,748,529	£96,566,893	£32,168,182

TIMES, JULY 3RD, 1845.

**312.—TRADE AND NAVIGATION.**—A parliamentary paper has just been issued, containing returns relative to trade and navigation, for the five months ending June 5th, 1845. The whole range of trade is embraced, but we have room at present for a few articles only. Butter, for instance: in 1843, the quantity imported was 54,604 cwt.; in 1844, the quantity was 69,053 cwt.; in 1845, 93,433 cwt. Cheese has increased in the same proportion. The quantity of wheat imported in 1845, was 71,089 quarters—a very small amount compared with the imports of the preceding two years. Flax also fell off materially. In fruits, the imports increased more than twofold. Silk, skins, spices, rum, and brandy also increased. Sugar imported in 1843, was 1,639,792 cwt.; in 1844, 1,286,470 cwt.; in 1845, 1,926,036 cwt.; and all for home consumption. Tobacco has doubled in the last two years. Wine has also doubled in quantity since 1843, the quantity in 1845 being 2,720,344 gallons. Cotton wool from the British possessions is also on the increase, but foreign has fallen off. Sheep and lamb's wool has increased from 11,234,621lb. in 1843; to 18,421,323lb. in 1845. The exports of coffee from the British possessions in 1843, were 31,246lb. only; in 1844, 38,802lb.; in 1845, 263,421lb. The declared value of exports, coal, cotton manufactures, yarn, cutlery, earthenware, hardware, linens, linen yarn, metals, salt, silk manufactures, refined sugar, sheep's wool, woollen yarn, woollen manufactures, in 1843, was £17,027,190; in 1844, £19,490,719; in 1845, £20,482,579. With regard to shipping, the tonnage entered inwards in the five months ending the 5th of June, 1843, was 1,244,186; in 1844, 1,180,286; in 1845, 1,532,748. Cleared outwards, in the same periods respectively, 1,521,936, 1,412,694, 1,593,008. In the coasting trade, the tonnage entered inwards in the same periods, was, including the trade with Ireland, 4,174,439, 4,326,334, 5,225,932. Cleared outwards, 4,560,984, 4,507,848, 5,393,419. The number of ships has increased in the ratio of the augmentation of the tonnage.—TIMES, AUGUST 2ND, 1845.

**313.—IMPORTATION OF FOREIGN CATTLE, FRUIT, &c.**—A very large quantity of cattle, fruit, and other descriptions of provisions has again been imported into this country from Holland and other parts of the Continent, within these few days. The Dutch steamship, Batavier, which arrived at the St. Katherine Steam-wharf, from Rotterdam, on Wednesday afternoon, had on board the large number of 74 head of oxen and cows, and 80 sheep, all of which were in excellent condition, and were landed and delivered with all possible despatch. This vessel also brought 646 baskets of currents, besides a large quantity of melons, poultry, yeast, and other articles of Dutch produce and manufacture. The General Steam Navigation Company's vessel, Rainbow, which arrived at the St. Katherine's wharf, from Havre, on the following evening, had a large quantity of fruit, chiefly plums, and eggs, besides a variety of other articles; and the Company's vessels, Tourist, from Calais, and Earl of Liverpool, from Ostend, on the same day, had also a large quantity of poultry, eggs, and butter, and other articles for consumption in this country.—TIMES, AUGUST 9TH, 1845.

**314.—SALT TRADE IN 1844.**—The following statement is a near approximation to the actual consumption in 1844:—Droitwich and Stokewich have made about 50,000 tons; and with their increased works may probably work double that quantity in 1845. Of the above about 20,000 tons was sent to Gloucester for foreign and coasting trade; for the London market, about 15,000 tons, and for other places, 15,000 tons. The annual consumption of salt, at home and abroad, is upwards of 600,000 tons, and may be estimated as follows:—

	Tons.
Birmingham, for house use .....	2500
"    for agricultural and chemical purposes .....	1500
Walsall, Wolverhampton, and Stourbridge .....	1000
Kingsbury, Atherstone, Tamworth, Lichfield .....	1200
Burton and Derby .....	600
Belper, Wingfield, Chesterfield, Mansfield .....	400
Masbro' and Rotherham .....	1000
Sheffield and district .....	1200
Barnsley, Swinton, Doncaster .....	600
Wakefield .....	500
Leeds .....	2000
Selby and York .....	1200
On the Great North of England, up to Dar-	
lington .....	1500
Lincoln, Louth, Newark, Market Rasen .....	1200
Burton, Holbeck, Sleaford, Spalding .....	1000
Wisbeach .....	600
Nottingham, Grantham, and district .....	900
Kegworth, Melton Mowbray, Leicester, Lough-	
borough, Lutterworth .....	1000
Rugby, up to Northampton .....	1000
Peterborough, Huntingdon, and Ely .....	500
Cambridge and district .....	900
Newmarket, Thetford, Denham .....	300
Lynn and District .....	2000
East of Norfolk, up to Yarmouth .....	2500
Great Yarmouth .....	5000
Lowestoft .....	500
Norwich .....	2500
Southwold, Woodbridge .....	800
Harwich, Ipswich, Colchester .....	3000
Bury St. Edmunds, Sudbury, &c. ....	1000
Radcott District .....	500
Bedford, Fenny Stratford, Woburn .....	1200
Leighton, Ampill, Aylesbury, Dunstable .....	1800
London, from 25,000 to .....	35000
Essex, Kent, Sussex, Hampshire, Dorset,	
Somerset, Devon, Cornwall, and the	
greater part of Wales, now supplied	
from Liverpool .....	30000
Herefordshire, Worcestershire, Oxfordshire,	
Berkshire, Wiltshire, now partly supplied	
from Worcestershire .....	10000
Liverpool exports annually:—	
For Baltic .....	90000
Holland and Belgium .....	80000
Coasting trade and Ireland .....	150000
America, Africa, Asia, and Colonies .....	170000
From the works for home use in the interior .....	90000

### 315.—ENGLAND AND THE CONTINENT.—

The following table shows the number of persons who passed between England and the specified ports during the first six months of the present year:—

Boulogne.....	24,877
Ostend.....	9,102
Havre.....	7,591
Calais.....	6,058
Dieppe.....	2,971
Antwerp.....	2,391

TIMES, AUGUST 8TH, 1845.

53,090

### 316.—TABLE OF THE LIVERPOOL DOCKS,

SHOWING THE AREA OF WATER, QUAY SPACE, &c.:—

	Total Water Area. Acres.	Yards.	Total Quay Space. Miles.	Yards.
George's Dock and Passage..	5	2593	0	1001
Prince's Dock and Locks....	11	3889	0	1613
Waterloo Dock, Lock, and half of passage.....	6	1153	0	993
Victoria Dock, River Entrance, & half of passages	5	4159	0	827
Trafalgar Dock, Lock, and half of Passage.....	6	2643	0	1020
Clarence Dock and Passage..	6	273	0	914
Clarence Half-Tide Dock, Graving Dock Basin and Passage.....	0	4072	0	291
Total Water Area and Quay Space of Dry Basins.....	13	4828	1	358
Total Water Area and Quay Space of the Liverpool Docks.....	120	4270	9	1551
Canning & Salthouse Docks and Passage.....	4	3493	0	730
Albert Dock and Passages..	7	3542	0	885
King's Dock and Passage....	7	3896	0	875
Queen's Dock and Passages..	10	3101	0	1255
Union Dock and Passages....	2	3505	0	497
Coburg Dock and Passages..	4	2198	0	747
Brunswick Dock and Passage	12	2744	0	1092
Brunswick Half-tide Basin and Passage.....	1	3388	0	491
Tortoth Dock and Passage..	1	469	0	393

The extreme length of the completed river wall belonging to the Dock Estate, is two miles and 1087 yards. The total measurement of Graving Docks at bottom is 1830½ lineal yards.—LIVERPOOL STANDARD 17TH DEC. 1844.

### 317.—The progressive increase of business

on the Manchester and Leeds Railway is shown in the following comparative statement:—

	1843.	1844.	1845.
Passengers: number booked in six months, viz: 1st January to 30th June:—			
First class.....	40,128	42,751	63,814
Second class.....	130,941	143,823	160,190
Third and fourth class..	381,570	487,031	627,493
Total.....	552,639	673,605	851,497
Miles travelled.....	7,955,339	10,024,141	12,167,480
Merchandise—			
Tons conveyed.....	144,617	192,381	254,611
Mileage.....	4,451,088	5,711,208	7,380,963
Receipts—			
From passengers, parcels, and mails.....	56,951	64,053	70,672
Goods, live stock, and carriages.....	58,806	64,018	80,940
Rents.....	1,766	1,315	1,667
Total.....	112,524	129,386	153,279
Disbursements—			
Working expenses.....	33,917	36,087	45,988
Rates, taxes, and duty..	7,867	8,318	6,059
Interest on loans.....	35,747	37,459	40,888
Total.....	77,531	81,864	92,935

318.—Glass sent from Birmingham to London, in 1832, was about 1060 tons, by canal, and the breakage averaged 24 per cent.

319.—At a tannery near Leeds, (the largest in the kingdom,) the proprietor has at present (March, 1845,) a contract to supply, to one house alone, 2000 hides weekly. There are weekly turned out from the same tannery 5000 hides. In one yard there are 420 pits; and two large steam-engines on the premises to pump the water.

320.—SPANISH VESSELS.—Mr. Matthew Forster, M.P., of Lloyd's, has obtained a return of the number and tonnage of all the Spanish vessels that have entered the ports of the United Kingdom, during the last five years, distinguishing whether from national, colonial, or foreign ports, and if with cargoes, or in ballast. It is found, on inquiry, that in the year 1840, 52 vessels, of 5,140 tons burden, entered, with cargoes, from national ports; 19 vessels, of 3,037 tons, from colonial ports; and one vessel, of 150 tons, from a foreign port, in ballast. In 1841, 41 vessels, of 5,022 tons, entered with cargoes from national ports; 10, of 1,576 tons, from colonial ports; and one, of 170 tons, from a foreign port. In 1842, 50 vessels, of 7,721 tons, entered with cargoes from national; 17, of 3,074 tons, from colonial; and one, of 160 tons, from a foreign port. In 1843, 40 vessels, of 5,022 tons, entered with cargoes from national; 23, of 4,037 tons, from colonial; and one, of 120 tons, from a foreign port. In 1844, 53 vessels, of 6,013 tons, entered with cargoes from national; 17, of 2,986, from colonial; and five, of 723 tons, from foreign ports.

321.—BELGIAN RAILWAYS.—The following is a comparative statement of the receipts of the Belgian railroads during the first six months of the years 1844 and 1845:—

	1844.	1845.
	Francs. Cts.	Francs. Cts.
January.....	648,204 51	763,870 57
February.....	665,334 99	687,262 27
March.....	769,582 88	856,005 30
April.....	901,430 52	987,101 69
May.....	970,266 27	1,037,599 70
June.....	983,665 2	1,061,119 4
	4,938,484 19	5,482,960 57

This shows an increase of 544,476f. 38 c., or 11 per cent., in favour of the first half of the present year. At the same time it is to be remarked that this increase has been entirely derived from the transport of merchandise, the number of passengers having diminished.—TIMES, 8TH AUGUST, 1845.

322.—CANALS.—In a Memorial to the Legislature, of the State of New York, America, the following statement of the expense of making some of the most considerable canals in England, is given:—

	Cost.	Area.
The Rochdale Canal.....	£291,900	2½
Ellesmere Canal.....	400,000	57
Kennet and Avon Canal.....	430,000	78
Grand Junction Canal.....	500,000	90
Leeds and Liverpool Canal.....	800,000	129

The number of miles are 384, which cost £2,411,911, little more than £2,128 per mile, including the land.

N.B.—The Grand Junction Canal passes more than once the great ridge of hills that divide the waters of En. land. The Forth and Clyde Canal in Scotland, is 35 miles, rises and falls 160 feet, by means of 39 locks. It is eight feet deep of water, and passes vessels 19 feet wide. The cost is calculated at £300,000, which is at the rate of little more than £6,714 per mile.

323.—LARGE FISH CAUGHT AT ELLESMERE PORT, NEAR CHESTER.—On Saturday, the 19th August, 1837, a large fish was observed in the middle channel of the river Mersey, opposite Ellesmere Port, which had been left by the previous tide. Mr. Samuel Salt, in his small pleasure boat, accompanied by three men, proceeded to examine the fish, which was found to be a grampus, or young whale, nearly dead. With considerable difficulty they succeeded in fastening ropes round the body of the fish, and after tying it to the small boat, they towed it to shore, when it was taken out of the water by a strong crane, and examined by the public. It measured, from head to tail, 26 feet; round the body, 12 feet; from each extremity of the tail, 6 feet; and weighed from 3 to five tons. The body of the fish was given by Mr. Salt to the men who accompanied him in the boat, and the skin to the Zoological Gardens, Liverpool, to be preserved.—CHESTER PAPER, AUGUST, 1837.

*The following Statistics were given in Evidence before Railway Committees, in 1845.*

**324.—Mr. JOHN BATES**, in the employment of Messrs. Sutton, carriers, at Leicester, said:—The present annual tonnage between Bristol, Leicester, Derby, and Nottingham, was 1,500 sheets of wool, each of 4 cwt.; 1,100 tons of drysaltery, about 300 tons of hosiery, went back to Bristol from the Midland districts. From Worcester about 1,200 sheets of wool, 400 pockets of hops, and 250 tons of cider, vinegar, and other goods, go into the midland districts. From Gloucester, 1,500 sheets of wool, principally the produce of South Wales, go into the same districts. It is carried by canal. Between Bristol and the Potteries the traffic is about 80 tons weekly.

**325.—Mr. STEPHENS** stated:—I am in the employment of Messrs. Pickford, and have made an extract from their books, showing the general traffic for three months, ending the 31st of March, 1845. The number of tons through Birmingham to the Severn ports, as far west as Bristol, amounted to 2,625 tons to that direction, and 2,220 tons from that direction; so that if the gauge was shifted at Birmingham, 4,845 tons would have to be transhipped. The amount to and from Birmingham, through Bristol, was respectively 72 and 28 tons; so that if the gauge was shifted at Bristol, only 100 tons would have to be transhipped.

**326.—Mr. WILLIAM HANCOCK**, Cookley, near Kidderminster, said:—We pay between £9,000 and £10,000 a year for carriage of coke, pig-iron, &c. Coal costs us about 3s. a ton carriage. It takes us three days to deliver goods in Manchester, five in London, and five in Bristol.

**327.—Mr. BEST**, an extensive iron-master, in South Staffordshire, said:—There are 145 blast furnaces in South Staffordshire. 100 are in full blast. They make annually upwards of 468,000 tons of pig iron. For the making of this, seven times the amount of raw materials is required to be moved, viz: coal and limestone.

**328.—Mr. J. W. CAPEWELL**, of Dudley, said 13,660 tons of fruit and vegetables come annually into Dudley. They are brought in carts. 329 tons of fish come annually into Dudley. They come by rail to Wolverhampton, and in carts. 13,000 quarters of malt are malted in Dudley per annum. There is also a great quantity of hay, straw, and timber; of the latter, more than 6,000 tons; upwards of 24,000 head of cattle, including sheep and pigs, come into Dudley in the year for consumption. The population of the Dudley union is upwards of 80,000.

**329.—Mr. BEST**, a large yarn manufacturer at Kidderminster, said:—There are 2,233 carpet looms in Kidderminster. Wool comes from all places, except Wales. Linen yarn comes from Scotland, and very little from the west of England. The dyed goods come from London and Bristol. 1,800 tons of wool are used annually in the yarn spinning. We pay 35s. a ton carriage. It comes by canal. 20,000 tons of coal are consumed in Kidderminster by the manufacturers alone.

**330.—Mr. ARTHUR WELLS**, a hop merchant at Worcester. The average annual produce for the last 20 years, is 1,400 tons. We send annually about 4,000 pockets to the north, via London. Hops suffer very much by change of carriage. We are not allowed to re-pack them, if they escape. Our trade in clover seed is about 1,300 tons per annum.

**331.—Mr. LEE** stated that he lived at Droitwich. 80,000 tons of salt are annually made there. A large quantity of coal is consumed in making it.

**332.—Mr. SUTTON**, a linendraper at Newark, said, goods coming to him from Manchester, cost in carriage, 50s. per ton, and occupied four days in their passage; from Barnsley the cost of carriage was 40s.; and from Leeds, 50s.

**333.—Mr. HARRIS**, a worsted spinner and carpet manufacturer at Stourport, said:—We use a great deal of wool. We get none from the west. The fine wools which we don't consume, we send to Yorkshire. Not having railway communication, I send all my carpets to London, and they are distributed thence throughout the country. Upwards of 500 tons of fruit go from Stourport to the mining districts annually.

**334.—Mr. S. LOVELL**, coal merchant, of Bedford, examined by Mr. PAGE, stated that his principal supply of coal came from the town of Lynn, where it cost from 28s. to 30s. per ton, to which the carriage of from 8s. to 8s. 6d. per ton was to be added, raising the price, at Bedford, to 36s. or 38s. 6d. He could get Yorkshire coals for 14s. 6d. per ton, if a railroad were constructed. He sold about 3,000 tons a year, and about 16,000 tons more were disposed of by other coal merchants.

**335.—Mr. HEATH**, of Stourport, said:—I was formerly largely engaged in the canal carrying trade. Upwards of 140,000 tons pass through Stourport by Worcester and Staffordshire canal. 50,000 tons of this is coal. There is a large quantity of fruit, sometimes as much as 50 tons of damascenes per week; also a large quantity of ironmongery, fire-bricks, grain, timber, hay, &c. The canal is very badly supplied with water.

**336.—Mr. ROBERT WILLIAMSON**, a manufacturer, at Tunstall, and also a proprietor of coal and ironstone mines, spoke of the important iron works of Tunstall and Aircastle, whence 4,000 tons were sent weekly by the four principal firms.

**337.—Mr. R. LINDSELL**, brewer and banker, of Biggleswade, said the agricultural produce of the district was raised from about 4,000 acres, and would be much increased if they could procure manure, which was their principal want. He believed that a large portion of 6,000 acres of land out of cultivation, for gardening purposes, would be brought into use, if there were any means of supplying that want, and that the produce would be increased from 30,000 tons, to 52,000 tons. The 4,000 acres might be made to produce about 15,000 tons more, so that the total amount would be 67,000 tons.

**338.—Mr. J. CRAVEN**, of Kilwick, worsted manufacturer, employing 1,900 hands, stated the consumption of coal in the immediate neighbourhood, amounted to 150,000 tons.

**339.—Mr. H. HARTOPP**, manager of the Bowling ironworks, near Bradford, stated the consumption of Skipton limestone yearly in those and two other works, to be above 33,000 tons.

**340.—Mr. JOHN FOXBELL**, the secretary of the Midland Railway proved, that on a calculation, 6,240,000 foot passengers had crossed the Midland Railway, in six years, at a level, without an accident.

**341.—Mr. PIKE** stated that the traffic in copper ore, between Redruth and Truro, was about 41,000 tons per annum.

**342.—Mr. T. W. LUKIN**, manager of the Wildon tin works, near Stourport, said:—We consume 8,000 tons of coal per annum, and 3,509 tons of iron. We send about 3,000 tons of manufactured goods to Birmingham. They go by canal. The transit is slow, expensive, and uncertain.

**343.—GEORGE PICKERING** proved that the quantity of coal sent from the collieries in the Earwash Valley, to Newark, was 38,590 tons; to Lincoln, 3,169 tons; to Boston, Sleaford, and other places, 17,250 tons; and to the various wharfs lying between Shardlow and Gainsborough, 29,243 tons.

**344.—Mr. E. SMITH**, a market-gardener, at Evesham, said:—There are 600 acres of garden ground, producing 4,500 tons. Our markets are Birmingham and Liverpool.

345.—**MR. W. MUIR**, merchant in Leith, was examined as to the extent and character of the trade at present carried on between Leith and Liverpool. He stated the present average passage between those places was from 16 to 17 days; the exports from Leith there, being in the year, about 4,500 tons, and the corresponding imports being 10,000 tons. About 1,000 tons of lead were brought into Edinburgh annually, costing, for freight, from 15s. to 16s. per ton.

346.—**MR. CAYLEY**, a corn and coal dealer, and farmer and grasper, at Banbury, said:—We send about 85,000 quarters of corn annually to the north. It goes by canal, at a cost of 2s. 6d. per quarter. It is of great importance to have a rapid transit for corn. If we had a railway to Birmingham, I should go once a week; I am now obliged to employ a factor, which takes sixpence per quarter from my profits.

347.—**MR. R. GREAVES** said:—I reside at Stratford-on-Avon. There is a railway from Stratford to Moreton-in-the-Marsh. It conveys 15,000 tons of coal per annum. About 45,000 tons come to Stratford annually from South Staffordshire, at a cost of 6s. 6d. per ton. About 18,000 are consumed in the town, the rest go on to Moreton and Evesham. We export agricultural produce to Birmingham to the amount of more than 16,000 tons; also lime. Goods coming from Bristol, cost us 30s. per ton carriage; from London, 40s.

348.—The produce of the Whitwick collieries, near Leicester, is 80,000 tons annually.

349.—There are from 14,000 to 15,000 tons of timber imported annually into Penzance, and 250 boats engaged off Penzance, in the pilchard fisheries, which produce about 4,000 tons annually. The copper mines lying west of Penzance, produce about £50,000 per annum; and the tin ore, about the same sum.

350.—**MR. J. B. GEARD**, brewer, of Hitchen, consumed 500 quarters of malt, and from 60 to 70 tons of coal yearly; the carriage of coal being chiefly by water, was subject to all the contingencies to which canal conveyance was liable. There were about 5,000, or 6,000, tons of coal consumed annually in Hitchen.

351.—**MR. BARFF**, the largest wool-stapler in Wakefield, stated: I do not think that one-fourth of the wool used in England, goes to Huddersfield, as has been stated. From the import tables it appeared that 55,000,000lbs. of wool were imported every year; and supposing that Huddersfield consumed the quarter of that amount, it would be 16,250,000lbs. Deducting from that their fair proportion of the wool imported into Liverpool, (which would be in the same ratio of one-quarter,) 1,738,900lbs. it would leave them no less than 14,511,100lbs. to come from the east; which proved that the quantity of wool from that quarter, exceeded that conveyed from Liverpool and the west, in the ratio of seven to one.

352.—**MR. BAILEY**, a cotton spinner, Staleybridge, deposed that 1-10th of all the cotton manufactures in the kingdom was carried on in the neighbouring districts. A considerable quantity of flour was consumed in the course of the year in the service of the looms, which amounted to 23,900 in number. About 240lbs. of flour was used to each loom in the year, as what was called "devil's dust."

353.—**MR. WHITMORE** addressed the committee on behalf of the Birmingham Canal Company, the most important canal in the kingdom, which, though only 14 miles in length in its main trunk, from Birmingham to Wolverhampton, yet, with all its branches, is 130 miles in length, with a revenue of from £125,000 to £130,000 per annum; and a carrying trade of between 3,000,000 and 4,000,000 of tons per annum.

354.—**MR. MICHAEL GRASEBROOK**, for the last twenty years chairman of the South Staffordshire Ironmasters' Association, and also a glass manufacturer, near Stourbridge, said he had heard Mr. W. Matthew's evidence, and fully corroborated it. 19,800 crates of glass were made annually in the Stourbridge district, of the average value of £152,358, and 5,764 crates about Dudley; two-thirds of this went to London, half the rest to Bristol, and the rest northward.

355.—**MR. LEGER**, formerly secretary to the Huddersfield Canal Company, was examined to show the extent of traffic existing on the canal. In the year ending March, 1844, the gross amount had been 126,182 tons, and for the same period in 1845, 143,849 tons. By the arrangements between the canal and railway companies, the former will receive £180,000. The canal company was not a very good speculation. The market price of a share, on which £57 16s. 6d. had been paid up, was only £10 or £12 about two years ago. The amount of receipts for 1844, was £7,588, and the tonnage on all articles was 1d. per ton per mile, with the exception of that on coal, which was 2d. per mile, for nine miles, after which it went free.

356.—**MR. WILLIAM MOXON**, maltster, in Pontefract. The quantity of coal and coke consumed in the borough was about 12,000 tons annually. If a Railway was, carried out, there would be a saving of 4s. per ton on the best sort of coal, and about 2s. on the inferior sort. The yearly saving to the borough would amount to nearly £2,000.

357.—**MR. E. CHITTY**, a miller, of Guildford, said:—The only mode of getting his corn from London was by the canal, which was a very inconvenient, as well as a slow and uncertain, process. He sent between 3,000 and 4,000 sacks of flour to London weekly.

358.—**MR. PATTEN**, the collector of customs, stated, that the export trade from the port of Goole, consisted chiefly of British manufactures. The greater part of the goods exported went to Hamburg and the Netherlands. The import trade consisted principally of sheep's wool, and various kinds of timber, from the colonies. The number of foreign vessels entered inwards in the port, in 1839, was 131. In the year 1844, the number was only 44. From the opening of the port of Goole, in 1824, to 1839, the year previous to the opening of the Hull and Selby line, the average of foreign vessels entered inwards, was 138, and the average of vessels outwards, during the same period, was 119.

359.—**MR. BOYS**, manager in the establishment of Messrs. Watson and Co., Manchester, stated that a very large trade (of which he gave full details) existed between Manchester and Norwich; and that 630,000 tons of goods were sent annually from the former town to the eastern parts of Lincoln, Bawtry, &c.

360.—**MR. ASHE**, corn-factor, Wakefield, deposed that 684,536 quarters of grain came into the market of that town, last year, of which a very great portion was sent from Lincoln and Norfolk. The cost of conveyance from Boston to Wakefield was at present £1 5s. 8d. per ton. He calculated that the London and York Railway would reduce that sum to 13s. 10½d.

361.—**MR. NELSON** stated the various quantities of gas obtained from the different gas coals in Scotland. The Lismahago coal yielded, on an average, 10,500 cubic feet per ton; the Lothian, a similar quantity; the Wilsontown coal, 8,820; the coal from the neighbourhood of Glasgow, 10,000; and that from Borrowstonness, the same amount.

362.—**MR. BARKER**, of the Chillington Ironworks, near Wolverhampton, said there is a railway on my property, of three feet gauge, joining the Grand Junction Railway. The minerals are transhipped from one waggon to another; there is very little inconvenience or expense in this. During the last nineteen months, I have sent 18,000 tons of iron along the Grand Junction line. The cost of transhipping was under five farthings per ton; two men can tranship 60 tons per diem.

363.—**MR. W. HARDY**, bookkeeper of the General Steam Navigation Company at Leith, stated in evidence, that the company had three steamers trading between London and Leith; that their entire traffic for the year, to and from Glasgow and London, amounted to 9,380 tons, and that only 1,200 tons thereof would be conveyed by railway. There was another company trading between Leith and London, with respect to whom, as they employed a similar number of vessels, similar results might be held good.

**364.—Mr. PEASE, late M.P. for Durham,** deputy-chairman of the Stockton and Darlington Railway Company, and proprietor of the most extensive coal-fields in the district, said he could raise 2,000 tons of coal per diem, and make about 2,000 tons of coke in the week. He believed that the charge of 3d. a ton per mile, would be amply remunerative, except in the case of very short distances, and of separate managements, which could not be brought to unite. He should be glad to sell his coke at 6s. per ton at the pit's mouth, and, transmitting it at the above-mentioned rate at a mileage, taken as the crow flies, he could deliver it in London for 21s. per ton, whereas it now cost from 28s. to 32s. With respect to coal, he would sell it for the same sum at the pit's mouth, and could deliver it at King's cross, paying the city dues, and defraying the expense of carriage within a circle of 6 miles, for 4s. 7½d. per ton. The formation of the London and York railway would save an enormous amount of coal which was now destroyed at the pit's mouth, that quantity so wasted in the year 1833-34 being 1,500,000 tons. Small coal might, if this line passed, be carried to London and sold for 8d. or 9d. per cwt. He had calculated the amount of coal consumed per head per annum by the populations of York, Durham, and Northumberland, and found that it was from 1½ to 2 tons and upwards, including men, women, and children; whilst in London, with all the demands of steamers, factories, mills, and manufactories, there was only about one ton per head per annum, one-third of the whole amount being required for manufactories, &c. The Stockton and Darlington Railway conveyed about 2,000,000 tons of coal annually, and there were no practical difficulties found in that traffic.

**365.—Mr. B. DENISON, on the London and York,** said it was proposed to carry coal at 3d. per ton per mile, which was a lower rate than he had seen any provision for in the acts of Parliament; and a similar low charge would be made for the carriage of corn, which would be conveyed for 1½d. He had attended the Railway Department of the Board of Trade, and delivered a communication to Mr. Lang, on the 19th of February, requesting the insertion of a clause to reduce the charge from 1d. to 3d. There was also a provision to be added to the bill for the carriage of manure in return waggons for 4d. per ton per mile. The company would also undertake that, when the distance by railroad exceeded by one mile the measured distance on the map between any two places, they would only charge the direct distance, which was called "the crow-flying principle." He had discussed the clause for first-class passengers with Mr. Lang, who made use of this expression, "You are entitled to charge 3d. per per mile, as you are a new line."

**366.—Mr. PEARSON, head clerk in the office of Mr. Anders, shipowner, of Selby,** stated that there was an extensive flour market, of which a large portion was sent thence to Manchester. The house with which he was connected had 18 schooners, of 150 tons burden, trading between London and Selby, which conveyed from 20,000 to 28,000 tons annually to and from those ports, the return traffic for the most part consisting of groceries, &c. There were two other establishments in Selby equally extensive. He was of opinion that the transit from that town to London, which now occupied nearly three days, might be made in one, if a continuous line were constructed.

**367.—Mr. W. MATTHEWS.—I am an iron-master residing at Edgemark, near Birmingham,** and carrying on business at King's Wyndford. I have four blast furnaces, producing 17,000 tons of pig iron annually; also collieries, having a sale of 500 to 1,000 tons per week. The weekly make of iron in the district between Wolverhampton and Dudley, is 11,065 tons. Between Dudley and Stourbridge, the weekly make is 4,775 tons; between Stourbridge and Stourport, the weekly make is 550 tons. There is an error in the report of the Board of Trade respecting the memorials presented from the ironmasters in favour of the respective lines. That report represents the London and Birmingham memorial as signed by 46 firms, and the Great Western by 37, whereas, from an analysis of the two memorials, I find that the Great Western was signed by 61 firms, producing 6,985 tons of iron weekly, and employing 18,270 men; and the London and Birmingham, by 43 firms, producing 4,810 tons weekly, employing 8,640 men.

**368.—Mr. JOHN LISTER stated that he was a shipowner at Hull.** In 1828 there were only a few potato ships left Goole. The town is situated on the Ouse, about eight miles above the point where it joins the Humber. The port was first established in 1828; after the establishment of the docks, the foreign trade was enlarged. The trade was changed for the worse, in consequence of the employment of steamers at the port of Hull. Since the opening of the Hull and Selby Railway, the foreign trade has disappeared. The coasting trade has increased steadily. The depth of water in the river is from 14 to 17 feet. The vessels engaged in the trade average about 800 tons. The coasting trade consisted of colonial produce from London; grain from the eastern ports, from Norfolk, Lincolnshire, and the agricultural districts. The different produce of the trade is generally forwarded to Wakefield by canal. Some portion, about one-fourth of the grain, went to Leeds. In the year 1839, before the opening of the Hull and Selby Railway, he had consigned to him 28,213 quarters of wheat, 9,444 bags of English wool, 8,215 bales of foreign wool, 1,414 tons of fuller's earth, 18,091 casks of herrings, 24,646 sacks of flour, 723 sacks of clover and other seed, 28,236 packages of general merchandise. The exports during the same year consisted of 10,933 tons of coal, 9,919 cwt. of cheese, 6,112 bales of Manchester goods, 1,675 bales of woollen goods, 6,699 packages of iron ware, 5,519 packages of general merchandise, 5,056 tons of stone.

**369.—Mr. R. FALK stated that he lives in Cheshire,** and has three extensive saltworks there; he sends from 50,000 to 100,000 tons of salt annually over the country. He is also engaged in the timber trade, and has large consignments of Baltic timber. Is of opinion that if a means of communication were made from the port of Goole, the greater portion of the timber trade would go there. There are excellent timber ponds at Goole, and some of the Hull timber is sent to them. Sometimes sends salt to Goole by canal; the cost is 12s. or 12s. 6d. per ton. The cost of sending it to Hull from the works, would be 12s. Could send it to Goole by the proposed line 2s. per ton cheaper. The production of salt in this country is about 800,000 tons annually; but Worcester and Cheshire alone are able to produce a million and a half of tons. About 150,000 tons are sent to the Baltic annually. The reduction of 1s. per ton on the carriage of salt, would materially decrease the aggregate price. The cost of rock salt is 3s. 6d. per ton, and of course the saving of 1s. would be a reduction of about 30 per cent. The Manchester and Leeds Company reduced their charges to 1d. per ton per mile, and the Midlands and London and Birmingham followed their example. The Great Western charges 1½d. per ton. In fact, all the lines have a graduated scale of charges in proportion to the quantity sent. They would not take 1d. per ton per mile for so small a quantity as 100 tons.

**370.—Mr. GEORGE THOMSON, the collector at the Wakefield station of the Manchester and Leeds Railway,** said a large quantity of corn arrives at Wakefield. It arrives by water from Goole. It is sent to Goole from the eastern coast. The quantities of grain brought from Goole to Wakefield were, in 1841, as much as 809,859 quarters; in 1842, there were 662,956 quarters; in 1843, there were 691,033 quarters; in 1844, there were 684,626 quarters. Large quantities of stone also pass by the Wakefield station to London, and other places. The number of vessels employed in the corn trade to Goole is 14,949.

**371.—Mr. MARTIN, M.P., interests himself in the fisheries off the coast of Galway,** as many of his tenants are employed in them. There is a place called Roundstone, near Galway, off which 500 boats are employed; taking the average earnings of each boat at £35, it would give a total of £17,500. There are many other boats employed off the coast, and their earnings swell the total receipts to £30,000. The major part of the produce of these fisheries would go through Galway. The kinds of fish produced are cod, ling, pollock, and turbot, besides salmon from the rivers. There are also lobster fisheries, and extensive oyster beds.

**372.—Mr. JAMES BOYDELL, a partner with Sir Stephen Glynn and Lord Lyttleton in the Oak Farm Ironworks,** consumes 2,000 tons of coal, and 400 tons of ironstone per week.

373.—**Mr. BARFF**, an extensive woolstapler at Pontefract, is in the habit of receiving quantities of wool from Scotland. This wool is first sent to Hull, and then shipped to Wakefield and Goole. Wools from other parts of the kingdom are often sent through Goole. The cost of sending the wool from Hull to Wakefield, is 10s. per ton. 5,000 or 6,000 tons of wool are annually sold in the Wakefield market.

374.—**Mr. LYNCH** stated that the carriage of merchandise, by canal, from Dublin to Ballinasloe, is 20s. per ton, or 24d. per mile. The land carriage between Ballinasloe and Galway is about 5d. per ton. In the year 1844, the imports to Galway were 17,182 tons, exclusive of wine, herrings, tobacco, tea, sugar, &c. The exports for the same period were 26,603½ tons. In the year 1838, the return of the imports and exports made by the Railway Commissioners was,—for imports, 12,000 tons; and for exports, 20,000 tons; showing an increase of 50 per cent. on one, and 30 per cent. on the other. In the county of Galway there are 200 fairs held annually; they are principally cattle fairs, and therefore would be much benefitted by a railway. There are 300 boats employed off Galway in the fishing trade, and the individual value of each boat varies from £50 to £100. There are great numbers of smaller boats employed in the same manner. The carriage of fish, per mail, from Galway to Dublin, was £18 13s. 4d. per ton.

375.—**Mr. F. NUNN**, farmer and butcher, at Bury. Has often known Bury market attended by 500 and 600 beasts, and from 10,000 to 12,000 sheep. Sends nearly the whole of his malt to Thetford. Bishop Stortford is a very large malting-place. The proportion of fat sheep to lean in Bury market, is not 100 in 5,000.

376.—**The Rev. JOHN D'ARCY**, vicar of the parish of St. Nicholas, in the county of Galway, proved that there had been new docks formed in Galway. They formed an area of five acres, and could accommodate vessels of 500 tons. The first year of their opening (1831), the receipts were £350; in 1832, they produced £700; in 1833, they produced £1,200; and so continued until the year 1836, when the receipts again began to increase, and last year the receipts amounted to more than £1,600.

377.—**Mr. THOMAS LANGDON**, an extensive cotton spinner, residing at Wigan, stated that the present cost of sending goods thence to Liverpool, was 8s. 9d. per ton, inclusive of cartage. There was much machinery made at Bolton, but none at Wigan, and the roads between those points were extremely hilly. Witness was in the habit of using carts in the conveyance of his goods from one to the other place, of which the cost amounted to 6s. 8d. per ton.

378.—A witness named **ATKINSON**, stated that about 17,000 vessels entered and left the port of Newcastle-upon-Tyne yearly; that it was the second port in the kingdom; that there was wanted greatly a railway communication from Newcastle along the projected line; that it would afford great facility for bringing the agricultural produce to Newcastle; the quantity of wheat was estimated at 80,000 quarters a year, of flour, 20,000 sacks; that many goods also passed through the town.

379.—**Mr. GORDON**, a writer of long standing in Dumfries, said the average yearly import trade he estimated at 7,804 tons, and the export trade at 3,870 tons. Last year 21,800 head of cattle were exposed for sale in, and 9,345 head passed through, the town, besides an equal number which crossed the river some distance above the town. The pig market in Dumfries was very important, nearly 1,500 of them having been exposed in the slaughter market from October to April of last year.

380.—**Mr. WRIGHT**, the coal manager for the Duke of Buccleuch, said he had examined the coal field in the Midlothian district, and it would yield about 80,000 tons; 80,000 tons were sent to Edinburgh by rail-road. Some coal fields contained 50,000,000 of tons, others 40,000,000, others a smaller amount. The Duke of Buccleuch, and the Marquis of Lothian, were the principal proprietors.

381.—**Mr. CARR** said, between Bradford and Low-Moor, the expected traffic was 116,919 tons.; from Low-Moor to Bradford, the actual traffic 709,361 tons.

382.—**Mr. ROBERTS**, a manufacturer at Galashiels, said the principal manufacture was plaids and tartans from woollen. The trade had been carried on in a small manner about 100 years. In 1830, the trade was much increased; the water was not sufficient for the works; and if coal could be procured at a cheaper rate, steam would be used to a great extent. At present the demand was greater than could be supplied. They consumed about 500 tons of foreign wool yearly. The expense of carriage was now very great in every article. From Edinburgh to Galashiels the carriage was about 20d. a ton.

383.—**Mr. COTTAM** was asked these questions: What is the existing amount of traffic between the two places, Low-Moor to Bradford, and Bradford to Low-Moor? Witness: Both ways the amount of traffic would be 139,456 tons. From Bradford to Low-Moor it is 70,281 tons, and from Low-Moor to Bradford, it is 69,175 tons.

384.—**Mr. WRIGLEY**, mineral surveyor, of Manchester, said the railway known as the Runcorn Gap Railway was constructed in 1833, at an expense of £205,000. In a period of four years, the traffic upon the line yielded £46,716, whilst the expenses had amounted to £32,404. Then the company had to pay an interest on bonds, the sum of £14,000, thus leaving a balance in favour of the company of little more than £300. There had, since the original formation of the railway, been a loss of £2,043 sustained. On behalf of the Canal Company, it was stated that since the formation of the railway, the receipts of the canal had very materially been diminished. The dividend had formerly been as much as 9 per cent, whereas of late it had not been more than 5½; the whole of the depreciation having arisen from the withdrawal of much of the traffic from the canal, by the facilities afforded by the railway, and the consequent reduction of tolls.

385.—**Mr. JAMES BUCKLAND** stated that the traffic between Newport and Cardiff, and Cardiff and Gloucester, was very considerable. The valley of Neath abounded in minerals, and there was a canal extending up the Vale of Neath. A large interchange of produce existed throughout South Wales, amounting to 500,000 tons annually. The quantity of tin plates manufactured last year, amounted to near 25,000 tons, being in value about £800,000; besides which there was a considerable trade in block tin, spelter, and copper ore. The value of the iron produced in the vicinity of the line amounted, last year, to £4,500,000. These were the calculations of 1844, this year they would be much increased. The total value of the mineral produce alone, amounted, last year, to £10,000,000 sterling.

386.—**CAPTAIN LAWS, R.N.**, on the Wakefield, Pontefract, and Goole Railway, said, the shipping accommodation at Hull was very insufficient for its trade, and that trade was daily augmenting. The docks were not of a size to afford room for large steamers. The Manchester and Leeds Company were not general carriers, but Pickford and Co., Thompson and Co., and other carriers, had warehouses at the principal stations. Some of these carriers paid last year, the sum of £30,000 for the carriage of their goods. Manufacturers can now get raw materials at Liverpool, as cheap as if they imported them themselves. It often happened that foreign goods imported to Liverpool, were sent from Manchester to Hull, for re-exportation coastwise, as being cheaper than direct shipping to Liverpool. The goods so sent last year exceeded 2,000 tons. The present charge from Manchester to Hull, is 15s. 6d., for passing over three railways. They went 51 miles over the Manchester and Leeds line, at a cost of 8s. 8d.; the York and North Midland and Leeds and Selby, 16 miles, at a cost of 8s. 3½d.; and 81 miles over the Hull and Selby, at 8s. 6½d. On the proposed line, the charge would be 12s.; and that price would afford a larger profit than the larger sum to Hull. The rate of mileage would be the same as on the Manchester and Leeds. There was a rising traffic in salt from Cheshire, between Manchester and Hull. The present cost of carriage is 8s. per ton. On the proposed line, it could be carried at a cost of 6s. The charge of conveying soft goods from Manchester to London, through Hull, by rail and steamer, was 40s. per ton. On the proposed line, that cost could be reduced to 37s. per ton.

**387.—CAPTAIN LAWS**, the manager of the traffic on the Manchester and Leeds railway, said the passengers on that line, were chiefly third-rate passengers. The local traffic, or short-distanced traffic, of Oldham, and Middleton, and other places, was of far greater value to the railroad companies, than the more distant traffic. It was quite usual now for one man to carry the work of three or four other men, since the trains had been so cheap; whereas, before the railways existed, those very men used all to go, each with his pack, to the master-manufacturer. At the present moment, there was such a store of corn and flour at Manchester, as would keep an army of 100,000 men for twelve months! At one corn mill on the Manchester line, there was an amazing quantity ground. It was of the greatest importance that there should be at the large stations, plenty of warehouses. The warehousing of flour was a new system. At Manchester there were not fewer than 80,000 sacks of flour. The warehouse room for flour was about five acres. In Yorkshire there was a great want of warehouse accommodation. As railway traffic increased, it was necessary to increase the extent of the station. He considered that an elevated station was rather beneficial, than otherwise. Passengers did not like to go up steps. It was of no consequence to them, generally speaking, if they could get out and go into the carriage at once, even at a considerable elevation.

**388.—MR. JOHN WALKER**, a surveyor and mining engineer, stated that there were 91 coal pits in the district around Wakefield. Upwards of 5,000 tons of coal were raised daily, but double that quantity could be raised. The pits belonging to the Earl of Scarborough would raise 100,000 tons per annum for 50 years.

**389.—MR. JOHN RIMMELL**, foreman to the largest cotton carrier in Liverpool, stated that it took an hour and a half to cart cotton from the north dock to the railway terminus. Most cotton was sent to Bolton and Bury. A delay of 24 hours often occurred at the former station. Cotton is sometimes kept at the depot for one, two, or three days, instead of being forwarded. A good deal of delay also takes place at the canal depots.

**390.—MR. PETER NAIRNE**, a bookkeeper and accountant of the Liverpool and Manchester Railway Company, proved the actual cost of carrying 23,000 tons on that railway was, exclusive of toll, power, and waggons, 2s. 8d. per ton, and that this included portage, salaries, sheets, ropes, and other small disbursements.

**391.—MR. JOHN GLOVER**, a clerk to an attorney at Bolton, read from a table the statistics of that town, as regarded the population, the number of mills there, the horse-power that worked them, the quantity of coal required for such working, and that 13,000,000lb. of cotton was worked up there.

**392.—MR. T. ENGLAND**, corn-factor, of Leeds, said the aggregate of grain, &c., received into the market of that town, amounted to 600,000 quarters annually, which for the most part came from Lincoln, and the eastern counties.

**393.—MR. SANDERS**, secretary to the Bristol and Birmingham Railway, stated that in the year 1844, 78,372 passengers were carried by omnibuses from Spetchley station to Worcester, at a cost of £2,698.

**394.—MR. FARDON** stated that he was the manager of the alkali and salt works at Stoke Prior. Thought that about 75,000 tons of salt were made at the Worcestershire works in a year. Coarse salt, used for agricultural purposes, was sold at about 7s. a ton. The better salt was 12s. One farmer, in the neighbourhood of Wolverhampton, had upwards of 100 tons last year. Salt was used upon light soils.

**395.—MR. FLETCHER** stated that about 25,000 tons of stone were annually sent from the quarries, near Leeds, and went through Goole. Most of the docks in London, and many bridges, were constructed of that stone. About 50,000 tons of merchandise were annually sent from London to Leeds and its vicinity, through Goole. Was under a contract to ship 700 tons of coal weekly at Goole. That contract was to last for two years certain.

**396.—MR. ACKROYD**, worsted spinner, at Otley, said about 30,000 tons of coal were used in Otley and neighbouring villages. The price was now about 12s. 6d. per ton, and he expected a railway would reduce that sum to 7s. per ton.

**397.—MR. STANSFIELD**, of Leeds, exports from 300 to 400 tons of goods annually from Hull. The shipment of his goods at Goole would be a saving of expense with regard to the carriage to that place. The freights from the two ports would be the same.

**398.—MR. R. BROAD**, Mayor of Falmouth, said the carriage of goods from Falmouth to Redruth and Truro, is 1s. per ton per mile. The conveyance is also very uncertain. The foreign fruit imported, varies from 300 to 500 tons annually. There were in the year 1842, as many as 522 vessels, calling for orders at Falmouth. That was in consequence of the scarcity of corn in England. In 1843 there were 405 vessels calling for orders; in 1844, there were 572, and up to the 10th inst. of the present year, there have been 275 vessels. This does not include the Indian vessels, or those which put into the port without calling for orders. The carriage of a pipe of wine to Exeter from Falmouth, costs £2. The harbour dues at Falmouth, on foreign vessels, are 2s. 6d., and 2s. on coasting vessels.

**399.—MR. BAEFF**, wool dealer, of Wakefield, stated that the greater portion of the 23,000 packs of wool which were used by his house, was carried from Lincoln, at a cost of 27s. per ton. There were about 100,000 bags of foreign wool, (of the average weight of 3 cwt. each), of which about 60,000 bags were sent to Yorkshire. The land carriage from Wakefield to London came to 55s. per ton; the freight by sea, to 30s.; but recently, the land carriers had reduced their rates from 2s. 9d. per ton, to 1s. 10d., being subjected to the pressure from without, which lowered the cost to 36s. 8d. More than half the corn and cattle of Lincoln went to Wakefield.

**400.—MR. BUCKLAND** stated that during the last year, 220,000 tons of iron, and 600,000 tons of coal, were exported from Newport; and from Merthyr to Cardiff, no less than 180,000 tons of iron annually, and that this trade was increasing daily. From Newport and Cardiff, ores were exported in considerable quantities, and from the latter place there was a large export trade to Ireland. From Bristol and Gloucester there were exported to Cardiff, in the year ending June, 1844, 80,000 tons; and from Cardiff, to other ports, 10,000 tons, which did not include coals. The total quantity of iron produced during the year in the districts, was from 450,000 to 500,000 tons, which, at the low average of 1844, was £4,500,000 in value. The tin plates produced in that part only of the district, through which the South Wales railway would pass, was between 27,000 and 28,000 tons, over £800,000 in value. There were 57,720 tons of copper ore imported into the country last year, of which 43,784 tons were smelted at Swansea, the total value of which was about £2,000,000. The whole metallic manufacture of the district amounted in value, in one year, to between £9,000,000 and £10,000,000, while there were large quantities of timber and charcoal produced in Herefordshire.

**401.—MR. LAWRIE**, a farmer, residing in the neighbourhood of Dumfries, said, cattle, to the number of 20,000 yearly, worth about £12 a head, were sent from Dumfries and its vicinity, he said, to be fattened in England, chiefly in Norfolk.

**402.—MR. PAUL MATTHEWS**, a brick manufacturer, at Stourbridge, worked up 30,000 tons of clay annually.

**403.—MR. ROBERT FALK** said he had salt-works in Cheshire, and had sent away from 60,000 to 80,000 tons of rock salt per annum. He was, with his partners, a large dealer in foreign timber, chiefly from the Baltic. A great portion of the timber trade would go to Goole, provided the railway was completed. Vessels were often detained at Hull some days, when they might reach Goole. The objection to Liverpool having the Baltic trade, was on account of the long voyages, and the large insurance required. If salt from Cheshire were sent to Goole to be shipped for the Baltic, it would be a great advantage to himself, and the dealers in salt in Cheshire.

404.—**MR. JOHN LIDDELOW**, sheep salesman at Colney, said the average number of sheep attending the Norwich market in 1839, was about 6,000 per week; neat cattle, 800; and pigs, 400 per week. The market has increased since 1839.

405.—**MR. W. BERRY**, a flour-mill owner, at Kibbegan, stated that there were several mills in that district. They manufactured about 100,000 barrels of flour and meal annually. The weight of that manufacture might be taken at 20,000 tons.

406.—**MR. WATSON**, an extensive grazier in Strathmore, expressed his conviction that if a railway was carried out, it would prove of wonderful benefit to himself, and to all persons in his district. He sent on an average about 200 head of cattle per week to Glasgow and Aberdeen. In 100 miles' journey, a fat beast would lose, in value, at least 20s. The beasts, at present, walked about 20 miles a day.

407.—**MR. THORNYCROFT**, an ironmaster of Wolverhampton, gave, in the Staffordshire dialect, an account of a canal tunnel, which was a disgrace to the country, the boatman having "to scrat himself" through with his legs. That mode of propelling the vessel along the tunnel was termed "legging."

408.—**MR. JOSEPH PEASE**, (late M.P. for Durham), an extensive coal owner, and interested in the Adulde, St. Helens, and the South Durham collieries, is in the habit of raising about 2,000 tons per diem, but that quantity can be much increased. The coals from all those pits, with a few fractional differences in quality, are all called first-class house-keepers' coals.

409.—**MR. C. B. MILLOR**, an extensive timber and iron merchant, at Aberdeen, said the amount of shipping was 114 in number, representing tonnage of 14,000. Of these vessels, one-half are engaged in the foreign trade; the other half are engaged in the home and coast trade—to London and Glasgow, and other parts, not abroad. The vessels were smacks of about 100 tons each. The trade of the town was mainly in flax, hemp, corn, timber, and iron, a portion of which they exported by way of Montrose; but much of the trade was to London for sale and exportation. Then they received a large quantity of coals, lime, herrings, and general goods, from the coast communication. The quantity of corn exported was between 30,000 and 40,000 quarters annually. Then they exported from 1,000 to 1,200 heads of cattle, 1,500 sheep, and a large quantity of fish, about 20,000 barrels of herrings, haddock, and 4,000 boxes of salmon every year were sent to London, as well as to Leith, Glasgow, and other places.

410.—**MR. JONATHAN FARDON**, manager of the British Alkali Works, at Stoke, near Worcester, has been intimately acquainted with the salt trade of Worcestershire for the last twenty years. It has increased five-fold. We have capabilities for doubling our make of salt. It has been much used for agricultural purposes of late years. It is used for light soils in our own country. There is a great extent of light soils in the country traversed by the Great Western line, in Wilts, Berks, and Hants. We have had many applications from farmers in those counties, but we have never sent any salt, as a sufficient number would not join to take a ship-load. About 5 cwt. is the annual quantity used per acre. I have no doubt we should sell 100,000 tons, if we had a railway into those counties. We should also do a large trade in soap. We use 26,000 tons of coal per annum, which usually comes from the Staffordshire coal-fields by canal. We are now obliged to use Derbyshire coal, in consequence of the want of water in the canal. This comes by railroad, a distance of 80 miles, whilst the Staffordshire collieries are only twenty miles distant. Our goods are invariably transhipped at Birmingham.

411.—**MR. SAMUEL COTAM**, the auditor of accounts to the Leeds and Manchester Railway, stated the quantity of the traffic at present existing between Liverpool and Wigan, the produce of which, in money, amounted to £95,119 per year, of which £26,031 was obtainable from the carriage of passengers; £894 from cattle; £65,933 from minerals and coal and goods; and £25,000 from sundries.

412.—**MR. WILSON**, a magistrate of Glasgow, and a commissioner of the Clyde Navigation, said there was only one railway, except the Pollock and the Govan, in that part of the district. There was a whole field—a virgin field—of minerals between Glasgow and Hamilton. By the Monkland Canal and Garrikir Railway, 600,000 tons of coal were annually imported into Glasgow. The quantity exported from Glasgow, to America, the West Indies, and other places, amounted to 170,000 tons last year. Two years back, 200,000 tons were exported.

413.—**MR. STEWART**, a coal and iron master, residing at Glasgow, and a member of the town council, said he was a proprietor of the Cleland Coal and Iron Works, near that city. Expected when his new blast furnaces were completed, he should make 60,000 tons a year. The expense of cartage to the Broomielaw, was 3s. 9d. per ton. Coal from the works cost 3s. a ton in cartage to the same place. The population of Glasgow increased from 10,000 to 12,000 annually. The Ayrshire coal was inferior to the coal obtained near Glasgow.

414.—**MR. GORDON** said he had lived at Dumfries for 30 years; said 9,845 head of cattle passed through Dumfries for the southern markets last year. About 20,000 lean cattle were sold in the market; 14,089 pigs were slaughtered there last year; they averaged about 13 stone each. They were mostly exported, after being cured at Annan.

415.—**MR. ALEXANDER HECTOR** stated that he was a fisher, and the proprietor of fisheries along the east coast of Ireland, and the east and west coasts of Scotland. He resided at Aberdeen. He paid a rental for various fisheries to the annual amount of £2,000. The quantity of fish sent to London from this part was 425 tons of salmon, 3,130 tons of haddock, 27,824 tons of herrings, 68 tons of dried herrings, 140 tons of crabs and lobsters, 318 tons of pickled cod, 170 tons of dried cod, and 300 tons of periwinkles. There were as many tons as that he had named of periwinkles sent from Scotland; that for six months in the year there were not fewer than 200 tons of periwinkles received in London. They averaged in price, generally, £5 or £6 per ton, but sometimes they were as much as £8. Those that he sent up from Aberdeen were from that coast. The cost of land carriage for the fish to Aberdeen was as much as 12s. per ton. Hitherto fish, as is well known, has been forwarded to London, and from London it has been sent into the different districts in the country. Of course, the expense of the double carriage has fallen on the consumers. The amount of fish which was cured in the year 1841, in Scotland, was no less than 667,243 barrels.

416.—**MR. J. CRAWFORD**, a Justice of the Peace for the county of Longford, and agent for Lord Westmeath, stated, from the 1st of May, 1844, to the 1st of May, 1845, there were sold at Longford, 184 barrels of bread, 1,140 barrels of barley, 155 barrels of rye, 1,863 barrels of wheat, and 103,698 barrels of oats, and 120 tons of hay, besides small quantities of other produce. What is called in Longford a barrel, is equivalent to about 20 stone in English weight. It is, however, much less in some sort of goods. The barrel of beer is 16 stone; the barrel of barley, 16 stone; while the barrel of wheat weighs 20 stone. The weight varies from 14 to 20 stone. There were also sold in the market of Longford, during the time mentioned, 18,335 pigs, 7,553 casks of butter, and 78,498 sacks of oats and meal. The soil of Longford is very good for agricultural purposes, but the soil of the neighbouring county of Roscommon, is much better. The present carriage, by canal, from Dublin to Longford, is 14s. per ton.

417.—**MR. SHEPPARD** stated that the quantity of corn that arrived, and was sold at Wakefield, was much on the increase. He did not consider that Wakefield was at all benefited by railways, as people came to sell their goods in the morning, and left in the afternoon without spending any money. Under the old plan, a good deal of money was spent in Wakefield. The value of the warehouse property at Wakefield, was £200,000, and could contain 500,000 quarters of grain. The warehouses at Goole could afford room for 50,000 quarters of grain.

## SALT EXPORTED FROM LIVERPOOL

Referring to the Tables, page 40, copied from the Evidence given by **BRAITHWAITE POOLE, Esq., F.R.S.**, before the Liverpool Dock Committee, last year, the following quantities have also been computed by him for the last twelve years, showing an average of 327,310 tons exported per annum.

IN THE YEARS.	TONS.	PARTICULARS OF LAST YEAR'S EXPORTATION.	TONS.
1883	170,400	To the Baltic—Denmark, Norway, Sweden, Russia, Prussia, } Hamburg, Lubec, Bremen, &c. . . . .	90,083
1884	162,265	To Holland and Belgium . . . . .	43,622
1885	282,877	To the United States . . . . .	92,371
1886	282,626	To Canada . . . . .	86,841
1887	271,585	To Africa, and other foreign parts of the world . . . . .	16,665
1888	390,839	To England, Ireland, Scotland, Isles of Jersey, Guernsey, } and Man . . . . .	149,490
1889	378,454		
1840	431,705		
1841	360,813		
1842	384,231		
1843	462,840		
1844	429,131		429,131

*Table of the quantity of Earthenware and China conveyed from the Staffordshire Potteries, during the Year 1844. Computed by Braithwaite Poole, Esq., F.S.S.*

TO	CONVEYANCE.	PACKAGES.	TONS.
Liverpool.....	By 56 boats, performing $87\frac{1}{2}$ voyages per week .....	163,800	51,870
Ditto.....	By railway from Whitmore .....	2,190	780
Manchester.....	By 6 boats, performing $5\frac{1}{2}$ voyages per week.....	11,052	3,500
Ditto.....	By railway from Whitmore.....	346	100
Chester.....	By railway, turnpike road, and boat.....	1,872	1,000
London.....	By 18 boats, performing 18 voyages per week.....	33,696*	10,670
Ditto.....	By railway, including Birmingham and the West of England.....	5,360	1,840
Birmingham....	By 10 boats, performing $10\frac{1}{2}$ voyages per week.....	19,936	6,000
		58,992	18,010
		238,252	75,210

Formerly the average number of Crates contained in a boat was 40, and weight 10 tons; but Earthenware is now, packed much closer, and the packages are consequently heavier. They are also made fully larger, so that the present average number in a boat is 36, and weight 11 tons, 8 cwt.

\* Some Earthenware is now carried in the boats loose, but if packed in Crates, the total would average \$3,696 yearly, as above stated.

## EARTHENWARE.

On the 18th of May, 1848, the ANDERTON CARRYING COMPANY issued the following Circular, which the Potters afterwards compelled them to relinquish, and revert to the old system of charging:—

"As many shippers of Earthenware are greatly dissatisfied with the present mode of charging the Inland Freight on this article, (neither actual measure nor weight being supplied), the Company beg to announce, that on and after the 24th instant, it is their intention to charge freight on all packages of China and Earthenware, according to the TON OF 40 CUBIC FEET, CALLIPER MEASURE, thus enabling Exporters, from their ship's measurement, or cargo-books, to test the accuracy of the charge.

"Hitherto, freight on Earthenware from the Staffordshire Potteries to Liverpool, has been charged, *not on the real size of the package*, but according to an arbitrary rule, indicated by the number of "*bars*" in each crate,—*tierces and hogsheds being usually called 50 and 60 feet respectively, although averaging perhaps only 35 and 45 feet.*

"The Company's charges, therefore, on and after the 24th instant, will be

	<b>H.</b>	<b>D.</b>	
<b>"For Casks of all sizes.....</b>	<b>5</b>	<b>0</b>	<b>per ton of 40 cubic feet.</b>

For Crates measuring less than 30 feet.....	5	0	"	"
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"	"	between 30 and 40 feet..	4	6	"	"
---	---	--------------------------	---	---	---	---

upwards of 40 feet..... 4 0

"The following table will convey a pretty accurate comparison between the *old* and the now *proposed* system of charge:—

	Average measurement.	By present system.	By proposed system.
		S. D.	S. D.
"Tierces now called 50 feet	35 feet.	4 5 each.	at 5 0 $\frac{1}{2}$ Ton
Hhds. " 60	45	5 8 "	" = 4 4
Crates between 5 and 10 feet.	7 $\frac{1}{2}$	1 3 "	" = 0 11 $\frac{1}{2}$
" 10 and 15	12 $\frac{1}{2}$	1 10 "	" = 1 6 $\frac{1}{2}$
" 15 and 20	17 $\frac{1}{2}$	2 4 "	" = 2 2 $\frac{1}{2}$
" 20 and 30	25	3 4 "	" = 3 1 $\frac{1}{2}$
" 30 and 40	35	3 10 "	at 4 6 = 3 11 $\frac{1}{2}$
" 40 and 50	45	4 5 "	at 4 0 = 4 6
" 50 and 60	55	5 8 "	" = 5 6
" 60 and 70	65	6 10 "	" = 6 6

"The rates of freight on Clay, &c., from Liverpool to the Potteries, remain as before, viz :—

	s. D.	
" To Tunstall, Port Vale, and Burnalew Wharfs.....	7	8
" Vale Pleasant Wharf, Etruria .....	8	2
" Stoke Wharf and Basin. ....	8	8

} "Ton of 2,400lb."



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